

**The Forrester Group**  
**ENVIRONMENTAL MANAGEMENT CONSULTANTS**

September 13, 1994

Ms. Jean A. Mescher  
Manager, Environmental and  
Engineering Services  
McKesson Corporation  
One Post Street  
San Francisco, CA 94104-5296

**ARKWOOD, INC. SUPERFUND SITE - OMAHA, ARKANSAS**  
**MONTHLY PROGRESS REPORT - AUGUST 1994**

Dear Ms. Mescher:

This progress report is being provided by The Forrester Group Incorporated, for submission by Millbrook Distribution Co. ("MMI"), formerly Mass Merchandisers, Inc., in accordance with Section IX.B.1 of the Consent Decree. This report is to be submitted to the United States Environmental Protection Agency ("EPA") and to the Arkansas Department of Pollution Control and Ecology ("State").

---

**Actions taken toward achieving compliance with the Consent Decree:**

**I. CURRENT ACTIVITIES**

Following is a general description of Work (as defined in the Consent Decree) activities commenced or completed during this reporting period.

During August 1994, MMI began full-scale operation of the interim treatment system. Perimeter air monitoring, including the off-site location, was performed. During August 1994, MMI aerated and excavated Cells 1 through 7 and 9 through 11. In addition, Cells 12 and 13 were aerated. Boundaries have been confirmed around all excavated Cells. All Cells but one have met the Remedial Objectives ("ROs") by Verification Sampling following the initial excavation. Upon the initial attempt to verify Cell 6, the computed level of pentachlorophenol ("PCP") was found to be 309, only 3 percent over the ROs for PCP. Additional soil has been removed from Cell 6 and it will be resampled.



A36000 43

Ms. Jean A. Mescher  
September 13, 1994  
Page 2

During August 1994, five lots of coarse material have been generated. All lots have been demonstrated to meet the ROs and have been stockpiled on-site for use as backfill.

## II. PROJECT DATA

Attached hereto are the analytical reports for perimeter air monitoring, feedstock sampling, coarse material sampling, verification sampling, quality assurance reports, and boundary sampling. As discussed previously, it has been determined that reporting of the method detection limit ("MDL") is more appropriate than the practical quantitation limit ("PQL"). Attached hereto are some reports transmitted previously which have been revised to report the MDL.

## III. PROJECTED ACTIVITIES

The following work activities are projected to be commenced or completed during the next three reporting periods:

During September 1994, MMI plans to complete excavation of the affected areas. MMI plans to complete treatment and storage of affected soil. MMI plans to conduct spring sampling in September 1994.

During October 1994, MMI plans to complete backfill and final grading and seeding of the site and demobilize from the site.

MMI does not anticipate any activities associated with this interim remedial action during November 1994.

## IV. PROBLEMS ENCOUNTERED OR ANTICIPATED

During August 1994, MMI experienced some down time of the interim treatment system due to belts cut by rocks, motor failure, material plugging, and other circumstances not uncommon to startup of such equipment. MMI has worked to minimize the amount of such down time and has made certain modifications to the equipment which have resulted in less interrupted operation.

During August 1994, MMI has taken actions and made modifications to reduce the amount of dust emissions from the aeration and treatment of the soil. The moisture content of soil is examined prior to aeration and multiple passes of the aerator are minimized to avoid aeration of soil with a low moisture content, resulting in increased potential for dust. In addition, the moisture content of feedstock is examined. Feedstock that is too dry results in more potential for dust. MMI is managing feedstock in an attempt to treat soil with optimal moisture content.

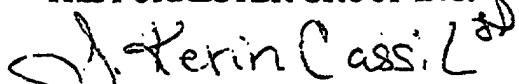
Ms. Jean A. Mescher  
September 13, 1994  
Page 3

Considerable efforts have been focused at modifications to the interim treatment system and its facilities, to reduce the potential for release of dust from this area. Early in the month, some dust release was noted and curtains were installed on two sides of the feedstock area and three sides of the coarse staging area ("CSA"). Upon further observation, additional anchors were attached to these curtains and additional curtains were ordered. Water sprays were added at the discharge of the clean, coarse material into the CSA. Plastic sheeting was placed around the bottom of the bucket elevator to suppress small amounts of dust. A baffle was placed in the path of the dust collector exhaust to diffuse the air flow and prevent migration of any dust. Plastic sheeting was added to the frame around the bucket elevator to contain any dust released in this area.

- Additional shrouds were installed at each point where one conveyor discharges to another to contain dust. Heavy curtains were installed across the front (fourth side) of the CSA. All of these efforts by MMI have resulted in a considerable reduction in release of dust from both affected and non-affected materials. MMI will continue to monitor the operation of equipment and facilities and will make additional modifications, if necessary, should conditions arise which result in an increase in the release of dust.
- 

Sincerely,

THE FORRESTER GROUP INC.



J. Kevin Cassil  
Principal Scientist  
Project Manager

Attachments

The Forrester Group  
ENVIRONMENTAL MANAGEMENT CONSULTANTS

**The Forrester Group**  
ENVIRONMENTAL MANAGEMENT CONSULTANTS

**TRANSMITTAL**

September 7, 1994

**To:** Ms. Jean Mescher  
Manager, Environmental and  
Engineering Services  
McKesson Corporation  
One Post Street  
San Francisco, CA 94101-5296

**From:** Tonya Page

**The following documents are enclosed:**  for your information  
 per your request  
 for your use  
 for your review

**Comments:** Copies of the analytical results to be included with Arkwood's Monthly Progress report for August 1994 are enclosed.

*Sent via Federal Express*

328 BOONVILLE • P.O. BOX 6406 • SPRINGFIELD • MISSOURI 65806  
PHONE 417.864.6444 • FAX 417.864.6445



~~DRAFT~~

AUG 12 1994

The Forrester Group  
Gravimetric Data

*Arkwood*

LIMS ID	Site	Sample Date	Tare Wt. (g)	Gross Wt. (g)	Net Wt. (ug)	Comments
94-F274	EST 01	6/27/94	4.3846	4.4704	85800	
94-F270	EST 02	6/27/94	4.3212	4.3559	34700	
94-F271	EST 03	6/27/94	4.3204	4.3528	32400	
94-F273	EST 04	6/27/94	4.3718	4.4096	37800	
94-F275	EST 05	6/27/94	4.3356	4.3833	47700	
94-F272	EST 06	6/27/94	4.3597	4.3922	32500	
94-F118	EST 07	6/27/94	4.4726	4.4802	7600	

**Note:** Results do not include ug/m<sup>3</sup> concentrations. Volumes were not provided at this time. We will report ug/m<sup>3</sup> conc. when volumes are available.

**The Forrester Group**  
**Gravimetric Data**

*Arkwood*

Sample ID	Site	Sample Date	Tare Wt.(g)	Gross Wt.(g)	Net Wt.(ug)	Comments
94-F806	EST 01	6/28/94	4.3089	4.5380	229100	
94-F805	EST 02	6/28/94	4.3240	4.4224	98400	
94-F804	EST 03	6/28/94	4.4514	4.5469	95500	
94-F803	EST 04	6/28/94	4.4597	4.5565	96800	
94-F781	EST 06	6/28/94	4.5761	4.6671	91000	
94-F802	EST 08	6/28/94	4.4001	4.3992	-900	
94-F819	EST 01	6/30/94	4.0667	4.2337	167000	loose deposit; bugs on sample area
94-F817	EST 03	6/30/94	4.2855	4.3948	109300	1 cm tear at fold
94-F818	EST 04	6/30/94	4.2925	4.3856	93100	bugs on sample area
94-F820	EST 05	6/30/94	4.0839	4.3062	222300	loose deposit; bugs on sample area
94-F815	EST 06	6/30/94	4.2946	4.4035	108900	
94-F816	EST 07	6/30/94	4.2960	4.2964	400	

Note: Results do not include ug/m<sup>3</sup> concentrations. Volumes were not provided at this time. We will report ug/m<sup>3</sup> conc. when the volumes are available.

**The Forrester Group**  
**Gravimetric Data**

*Arkwood*

Lab ID	Site	Sample Date	Net Wt. (ug)	Volume (m3)	Conc. (ug/m3)	Comments
94-F810	EST 01	6/29/94	133500	991.6	134.6	
94-F808	EST 02	6/29/94	34600	1873	18.47	
94-F811	EST 03	6/29/94	31800	1926	16.51	
94-F809	EST 04	6/29/94	44700	1926	23.21	
94-F807	EST 05	6/29/94	64500	1127	57.23	
94-F813	EST 06	6/29/94	32600	1818	17.93	
94-F812	EST 07	6/29/94	-900	1809	na	

**The Forrester Group**  
**Gravimetric Data**

*Arkwood*

Lab ID	Site	Sample Date	Tare Wt. (g)	Gross Wt. (g)	Net Wt. (ug)	Comments
94-F825	EST-01	7/ 1/94	4.3954	4.4597	64300	
94-F824	EST-02	7/ 1/94	4.4049	4.4379	33000	
94-F826	EST-03	7/ 1/94	4.4068	4.4429	36100	
94-F827	EST-04	7/ 1/94	4.3922	4.4192	27000	
94-F821	EST-05	7/ 1/94	4.1689	4.2069	38000	
94-F823	EST-06	7/ 1/94	4.3987	4.4348	36100	
94-F822	EST-07	7/ 1/94	4.3675	4.3672	-300	
94-F832	EST-01	7/ 2/94	4.3407	4.4273	86600	
94-F835	EST-02	7/ 2/94	4.3341	4.3812	47100	
94-F830	EST-03	7/ 2/94	4.4120	4.4634	51400	
94-F831	EST-04	7/ 2/94	4.3890	4.4372	48200	
94-F828	EST-05	7/ 2/94	4.3687	4.4477	79000	
94-F833	EST-06	7/ 2/94	4.3153	4.3660	50700	
94-F829	EST-07	7/ 2/94	4.3735	4.3732	-300	
94-F834	EST-01	7/ 3/94	4.3314	4.3672	35800	
94-F836	EST-02	7/ 3/94	4.3747	4.4094	34700	
94-F889	EST-03	7/ 3/94	4.3186	4.3474	28800	
94-F890	EST-04	7/ 3/94	4.3798	4.4130	33200	
94-F891	EST-05	7/ 3/94	4.3353	4.3644	29100	
94-F837	EST-06	7/ 3/94	4.3707	4.4066	35900	
94-F888	EST-07	7/ 3/94	4.3275	4.3279	400	
94-F892	EST-01	7/ 4/94	4.3617	4.4957	134000	
94-F893	EST-02	7/ 4/94	4.3506	4.4466	96000	
94-F897	EST-03	7/ 4/94	4.3959	4.4858	89900	
94-F895	EST-04	7/ 4/94	4.3788	4.4862	107400	
94-F898	EST-05	7/ 4/94	4.3700	4.4593	89300	
94-F896	EST-06	7/ 4/94	4.3759	4.4726	96700	
94-F894	EST-07	7/ 4/94	4.4216	4.4223	700	

**Note:** No volumes available

**The Forrester Group**  
**Gravimetric Data**

*Arkwood*

Lab ID	Site	Sample Date	Tare Wt. (g)	Gross Wt. (g)	Net Wt. (ug)	Comments
94-F903	EST-01	7/ 5/94	4.4083	4.4738	65500	
94-F901	EST-02	7/ 5/94	4.3808	4.4236	42800	
94-F904	EST-03	7/ 5/94	4.3401	4.419	78900	
94-F899	EST-04	7/ 5/94	4.3183	4.3527	34400	
94-F900	EST-05	7/ 5/94	4.3419	4.3739	32000	
94-F905	EST-06	7/ 5/94	4.3955	4.5124	116900	
94-F902	EST-07	7/ 5/94	4.3725	4.3719	-600	

**Note:** No volumes

**The Forrester Group**  
**Gravimetric Data**

*Arkwood*

Lab ID	Site	Sample Date	Tare Wt. (g)	Gross Wt. (g)	Net Wt. (ug)	Comments
94-F910	EST-01	7/ 6/94	4.3835	4.5655	182000	
94-F911	EST-02	7/ 6/94	4.3676	4.4711	103500	
94-F909	EST-03	7/ 6/94	4.3757	4.5838	208100	
94-F907	EST-04	7/ 6/94	4.3286	4.4548	126200	
94-F906	EST-05	7/ 6/94	4.3803	4.4785	98200	
94-F912	EST-06	7/ 6/94	4.4222	4.6098	187600	
94-F908	EST-07	7/ 6/94	4.3765	4.3761	-400	

**Note:** No volumes

**The Forrester Group**  
**Gravimetric Data**

*Arkwood*

Lab ID	Site	Sample Date	Tare Wt. (g)	Gross Wt. (g)	Net Wt. (ug)	Comments
94-F913	EST-01	7/7/94	4.3845	4.4919	107400	
94-F914	EST-02	7/7/94	4.4332	4.4507	17500	
94-F917	EST-03	7/7/94	4.4165	4.4347	18200	
94-F916	EST-04	7/7/94	4.3979	4.4321	34200	
94-F918	EST-05	7/7/94	4.4183	5.1833	765000	
94-F915	EST-06	7/7/94	4.4312	4.4508	19600	
94-F919	EST-07	7/7/94	4.3507	4.3502	-500	

**Note:** No volumes available

**The Forrester Group**  
**Gravimetric Data**

*Arkwood*

Lab ID	Site	Sample Date	Tare Wt. (g)	Gross Wt. (g)	Net Wt. (ug)	Comments
94-F923	EST-01	7/ 8/94	4.3472	4.3899	42700	
94-F925	EST-02	7/ 8/94	4.2810	4.3178	36800	
94-F921	EST-03	7/ 8/94	4.3448	4.3764	31600	filter missing at edge
94-F922	EST-03	7/ 8/94	4.3480	4.3764	28400	
94-F926	EST-04	7/ 8/94	4.3231	4.3553	32200	
94-F920	EST-05	7/ 8/94	4.3450	4.3815	36500	hole in filter at fold
94-F924	EST-07	7/ 8/94	4.3044	4.3048	400	filter missing at edge
94-F927	EST-01	7/ 9/94	4.3206	4.3382	17600	
94-F928	EST-02	7/ 9/94	4.3486	4.3837	35100	
94-F930	EST-03	7/ 9/94	4.3176	4.3305	12900	
94-F932	EST-04	7/ 9/94	4.3237	4.3407	17000	
94-F933	EST-05	7/ 9/94	4.2919	4.3081	16200	
94-F931	EST-06	7/ 9/94	4.3257	4.3343	8600	
94-F929	EST-07	7/ 9/94	4.3554	4.3556	200	
94-F936	EST-01	7/10/94	4.3083	4.3854	77100	
94-F934	EST-02	7/10/94	4.3046	4.3540	49400	
94-F937	EST-03	7/10/94	4.3201	4.3413	21200	
94-F939	EST-04	7/10/94	4.2990	4.3534	54400	
94-F940	EST-05	7/10/94	4.3150	4.3691	54100	
94-F938	EST-06	7/10/94	4.3153	4.3635	48200	
94-F935	EST-07	7/10/94	4.3101	4.3105	400	

**Note:** No volumes available

**The Forrester Group**  
**Gravimetric Data**

*Arkwood*

Lab ID	Site	Sample Date	Tare Wt. (g)	Gross Wt. (g)	Net Wt. (ug)	Comments
94-F941	EST-01	7/11/94	4.3275	4.3618	34300	
94-F942	EST-02	7/11/94	4.3107	4.3314	20700	
94-F993	EST-03	7/11/94	4.3492	4.3655	16300	
94-F994	EST-04	7/11/94	4.4348	4.4597	24900	
94-F995	EST-05	7/11/94	4.4115	4.4303	18800	
94-F997	EST-06	7/11/94	4.3376	4.3590	21400	
94-F996	EST-07	7/11/94	4.3619	4.3626	700	

**Note:** No volumes available

**The Forrester Group**  
**Gravimetric Data**

*Arkwood*

Lab ID	Site	Sample Date	Tare Wt. (g)	Gross Wt. (g)	Net Wt. (ug)	Comments
94-F1040	EST-01	8/ 1/94	4.5863	4.6394	53100	
94-F1042	EST-02	8/ 1/94	4.5837	4.6156	31900	
94-F1044	EST-03	8/ 1/94	4.5475	4.5702	22700	
94-F1046	EST-04	8/ 1/94	4.5497	4.5900	40300	
94-F1041	EST-05	8/ 1/94	4.5975	4.6234	25900	
94-F1043	EST-06	8/ 1/94	4.5700	4.5849	14900	
94-F1045	EST-07	8/ 1/94	4.5531	4.5542	1100	
94-F1052	EST-01	8/ 2/94	4.2720	4.3097	37700	
94-F1047	EST-02	8/ 2/94	4.5880	4.6142	26200	
94-F1048	EST-03	8/ 2/94	4.5474	4.5681	20700	
94-F1051	EST-04	8/ 2/94	4.2838	4.3120	28200	
94-F1053	EST-05	8/ 2/94	4.2693	4.2916	22300	
94-F1049	EST-06	8/ 2/94	4.5468	4.5649	18100	
94-F1050	EST-07	8/ 2/94	4.2929	4.2938	900	

**Note:** No volumes available

**The Forrester Group**  
**Gravimetric Data**

*Arkwood*

Lab ID	Site	Sample Date	Tare Wt. (g)	Gross Wt. (g)	Net Wt. (ug)
94-F1054	EST-01	8/ 3/94	4.2496	4.2832	33600
94-F1055	EST-03	8/ 3/94	4.2628	4.2772	14400
94-F1057	EST-04	8/ 3/94	4.5246	4.5561	31500
94-F1059	EST-05	8/ 3/94	4.5200	4.5466	26600
94-F1056	EST-06	8/ 3/94	4.2462	4.2756	29400
94-F1060	EST-06	8/ 3/94	4.5073	4.5347	27400
94-F1058	EST-07	8/ 3/94	4.4937	4.4947	1000

**The Forrester Group**  
**Gravimetric Data**

*Arkwood*

Lab ID	Site	Sample Date	Tare Wt. (g)	Gross Wt. (g)	Net Wt. (ug)	Comments
94-F1063	EST-01	8/ 4/94	4.5089	4.5378	28900	
94-F1062	EST-02	8/ 4/94	4.5235	4.5496	26100	
94-F1067	EST-03	8/ 4/94	4.4978	4.5177	19900	
94-F1065	EST-04	8/ 4/94	4.5107	4.5346	23900	
94-F1066	EST-05	8/ 4/94	4.5005	4.5257	25200	
94-F1064	EST-06	8/ 4/94	4.4857	4.5075	21800	
94-F1061	EST-07	8/ 4/94	4.5092	4.5106	1400	

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19633.02  
SAMPLE : 0151  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

REPORT: 19633.02  
QAQC# : BL082411  
INST. BATCH: 422469  
REPORTED : 08/29/94

SAMPLED : 08/12/94 07:30  
SUBMITTED: 08/16/94  
PREPARED : 08/24/94  
ANALYZED : 08/26/94 12:50  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND		BENZO(A) PYRENE	4	ND	
CHRYSENE	4	ND		INDENO(1,2,3-CD) PYRENE	2	ND	
BENZO(B) FLUORANTHENE	8	ND		DIBENZ(A,H) ANTHRACENE	6	ND	
BENZO(K) FLUORANTHENE	8	ND		PENTACHLOROPHENOL	12	ND	

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	93%	2-FLUOROPHENOL	(40-140)	87%
2-FLUOROBIPHENYL	(40-140)	97%	PHENOL-D5	(40-140)	90%
TERPHENYL-D14	(40-140)	95%	2,4,6-TRIBROMOPHENOL	(40-140)	106%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19633.03  
QAQC# : BL082411  
INST. BATCH: 422469  
REPORTED : 08/29/94

PROJECT : ARKWOOD  
LAB# : 19633.03  
SAMPLE : 0152  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 08/12/94 07:30  
SUBMITTED: 08/16/94  
PREPARED : 08/24/94  
ANALYZED : 08/26/94 13:23  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	95%	2-FLUOROPHENOL	(40-140)	84%
2-FLUOROBIPHENYL	(40-140)	98%	PHENOL-D5	(40-140)	82%
TERPHENYL-D14	(40-140)	96%	2,4,6-TRIBROMOPHENOL	(40-140)	108%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19605.02  
SAMPLE : 0142  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

REPORT: 19605.02  
QAQC# : BL082411  
INST. BATCH: 422461  
REPORTED : 08/29/94

SAMPLED : 08/11/94 07:30  
SUBMITTED: 08/12/94  
PREPARED : 08/24/94  
ANALYZED : 08/26/94 12:15  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1, 2, 3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	110%	2-FLUOROPHENOL	(40-140)	88%
2-FLUOROBIPHENYL	(40-140)	99%	PHENOL-D5	(40-140)	90%
TERPHENYL-D14	(40-140)	106%	2, 4, 6-TRIBROMOPHENOL	(40-140)	113%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19605.05  
QAQC# : BL082411  
INST. BATCH: 422461  
REPORTED : 08/29/94

PROJECT : ARKWOOD  
LAB# : 19605.05  
SAMPLE : 0139  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 08/11/94 07:30  
SUBMITTED: 08/12/94  
PREPARED : 08/24/94  
ANALYZED : 08/26/94 12:46  
DILUTION : 2  
  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	111%	2-FLUOROPHENOL	(40-140)	90%
2-FLUOROBIPHENYL	(40-140)	97%	PHENOL-D5	(40-140)	91%
TERPHENYL-D14	(40-140)	100%	2,4,6-TRIBROMOPHENOL	(40-140)	110%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE  
Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION  
SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19605.06  
QAQC# : BL082411  
INST. BATCH: 422461  
REPORTED : 08/29/94

PROJECT : ARKWOOD  
LAB# : 19605.06  
SAMPLE : 0143  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 08/11/94 07:30  
SUBMITTED: 08/12/94  
PREPARED : 08/24/94  
ANALYZED : 08/26/94 14:58  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND		BENZO(A) PYRENE	4	ND	
CHRYSENE	4	ND		INDENO(1,2,3-CD) PYRENE	2	ND	
BENZO(B) FLUORANTHENE	8	ND		DIBENZ(A,H) ANTHRACENE	6	ND	
BENZO(K) FLUORANTHENE	8	ND		PENTACHLOROPHENOL	12	ND	

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	110%	2-FLUOROPHENOL	(40-140)	87%
2-FLUOROBIPHENYL	(40-140)	94%	PHENOL-D5	(40-140)	91%
TERPHENYL-D14	(40-140)	100%	2,4,6-TRIBROMOPHENOL	(40-140)	88%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19623.02  
SAMPLE : 0147  
LOCATION:

MATRIX : AIR  
METHOD : SW 8270

REPORT: 19623.02  
QAQC# : BL082411  
INST. BATCH: 422461  
REPORTED : 08/29/94

SAMPLED : 08/11/94 07:30  
SUBMITTED: 08/13/94  
PREPARED : 08/24/94  
ANALYZED : 08/26/94 13:54  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	86%	2-FLUOROPHENOL	(40-140)	67%
2-FLUOROBIPHENYL	(40-140)	73%	PHENOL-D5	(40-140)	74%
TERPHENYL-D14	(40-140)	78%	2,4,6-TRIBROMOPHENOL	(40-140)	76%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19623.06  
QAQC# : BL082411  
INST. BATCH: 422469  
REPORTED : 08/29/94

PROJECT : ARKWOOD  
LAB# : 19623.06  
SAMPLE : 0146  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 08/11/94 07:30  
SUBMITTED: 08/13/94  
PREPARED : 08/24/94  
ANALYZED : 08/26/94 12:16  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	88%	2-FLUOROPHENOL	(40-140)	80%
2-FLUOROBIPHENYL	(40-140)	92%	PHENOL-D5	(40-140)	75%
TERPHENYL-D14	(40-140)	91%	2,4,6-TRIBROMOPHENOL	(40-140)	90%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE  
  
Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION  
  
SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

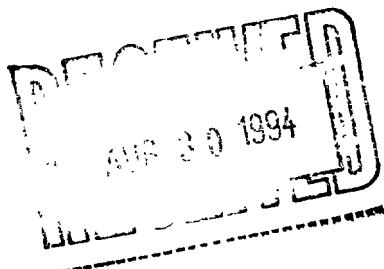
1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19651.06  
SAMPLE : 0162  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

REPORT: 19651.06  
QAQC# : BL082605  
INST. BATCH: 422524  
REPORTED : 08/29/94

SAMPLED : 08/15/94 07:30  
SUBMITTED: 08/17/94  
PREPARED : 08/26/94  
ANALYZED : 08/29/94 11:20  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW



BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puff ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	86%	2-FLUOROPHENOL	(40-140)	80%
2-FLUOROBIPHENYL	(40-140)	81%	PHENOL-D5	(40-140)	81%
TERPHENYL-D14	(40-140)	103%	2,4,6-TRIBROMOPHENOL	(40-140)	96%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

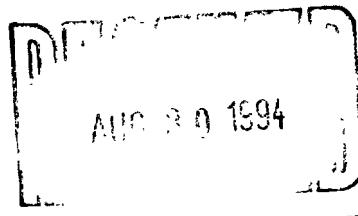
1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19669.01  
SAMPLE : 0163  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

REPORT: 19669.01  
QAQC# : BL082605  
INST. BATCH: 422524  
REPORTED : 08/29/94

SAMPLED : 08/16/94 07:30  
SUBMITTED: 08/18/94  
PREPARED : 08/26/94  
ANALYZED : 08/29/94 11:45  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW



BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puff ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	6 J

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	84%	2-FLUOROPHENOL	(40-140)	89%
2-FLUOROBIPHENYL	(40-140)	91%	PHENOL-D5	(40-140)	92%
TERPHENYL-D14	(40-140)	110%	2,4,6-TRIBROMOPHENOL	(40-140)	106%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19684.01  
SAMPLE : 0169  
LOCATION:

MATRIX : AIR  
METHOD : SW 8270

REPORT: 19684.01  
QAQC# : BL082605  
INST. BATCH: 422524  
REPORTED : 08/29/94

SAMPLED : 08/17/94 07:00  
SUBMITTED: 08/19/94  
PREPARED : 08/26/94  
ANALYZED : 08/29/94 12:11  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

*Recon*  
*AUG 30 1994*

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puff ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	2

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	86%	2-FLUOROPHENOL	(40-140)	84%
2-FLUOROBIPHENYL	(40-140)	84%	PHENOL-D5	(40-140)	90%
TERPHENYL-D14	(40-140)	109%	2,4,6-TRIBROMOPHENOL	(40-140)	97%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19592.06  
SAMPLE : 0132  
LOCATION:

MATRIX : AIR  
METHOD : SW 8270

REPORT: 19592.06  
QAQC# : BL082501A  
INST. BATCH: 422524  
REPORTED : 08/29/94

SAMPLED : 08/08/94 07:30  
SUBMITTED: 08/10/94  
PREPARED : 08/25/94  
ANALYZED : 08/29/94 09:38  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puff ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	104%	2-FLUOROPHENOL	(40-140)	98%
2-FLUOROBIPHENYL	(40-140)	104%	PHENOL-D5	(40-140)	102%
TERPHENYL-D14	(40-140)	121%	2,4,6-TRIBROMOPHENOL	(40-140)	126%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19684.07  
SAMPLE : 0186  
LOCATION:

MATRIX : AIR  
METHOD : SW 8270

REPORT: 19684.07  
QAQC# : BL081903A  
INST. BATCH: 421979  
REPORTED : 08/22/94

SAMPLED : 08/17/94 07:00  
SUBMITTED: 08/19/94  
PREPARED : 08/19/94  
ANALYZED : 08/22/94 09:39  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puff ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND		BENZO(A) PYRENE	4	ND	
CHRYSENE	4	ND		INDENO(1,2,3-CD) PYRENE	2	ND	
BENZO(B) FLUORANTHENE	8	ND		DIBENZ(A,H) ANTHRACENE	6	ND	
BENZO(K) FLUORANTHENE	8	ND		PENTACHLOROPHENOL	12	ND	

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	87%	2-FLUOROPHENOL	(40-140)	90%
2-FLUOROBIPHENYL	(40-140)	91%	PHENOL-D5	(40-140)	91%
TERPHENYL-D14	(40-140)	98%	2,4,6-TRIBROMOPHENOL	(40-140)	102%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

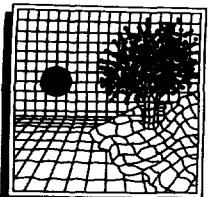
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986



# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 West Albany • Broken Arrow, Oklahoma 74012 • Office (918) 251-2858 • Fax (918) 251-2599

CLIENT: FORRESTER GROUP

REPORT: 19684.07DF

205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806  
ATTN: KEVIN CASSIL

DATE: 08-23-94

SAMPLE MATRIX: AIR  
SWLO # 19684.07  
DATE SAMPLED: 08-17-94  
DATE SUBMITTED: 08-19-94  
DATE EXTRACTED: 08-19-94  
DATE ANALYZED: 08-22-94  
METHOD REFERENCE: SW846-8280  
PROJECT: ARKWOOD  
SAMPLE ID: 0186

RESULTS REPORTED IN Parts Per Trillion (ng/puf)

ANALYTE	EST. QUANTITATION	CONCENTRATION
	LIMIT	

## DIOXINS

TOTAL TETRA CDD	0.3	ND
TOTAL PENTA CDD	2.0	ND
TOTAL HEXA CDD	2.0	ND
TOTAL HEPTA CDD	5.5	ND
TOTAL OCTA CDD	46.3	ND

## FURANS

TOTAL TETRA CDF	1.5	ND
TOTAL PENTA CDF	1.3	ND
TOTAL HEXA CDF	1.7	ND
TOTAL HEPTA CDF	3.3	ND
TOTAL OCTA CDF	7.3	ND

## QA/QC SURROGATE RECOVERIES

13C-TCDD (25-150)	79%	13C-TCDF (25-150)	86%	13C-HxCDD (25-150)	71%
13C-OCDD (25-150)	41%	13C-HpCDF (25-150)	69%	37C14-TCDD (25-150)	88%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

NA = NOT APPLICABLE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

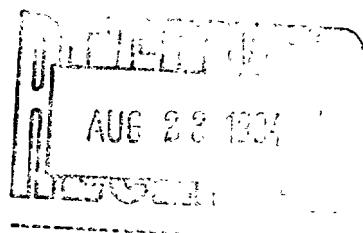
\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19550.02  
SAMPLE : 0110  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270



REPORT: 19550.02  
QAQC# : BL081505D  
INST. BATCH: 321824  
REPORTED : 08/17/94

SAMPLED : 08/03/94 10:30  
SUBMITTED: 08/05/94  
PREPARED : 08/15/94  
ANALYZED : 08/16/94 14:34  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	83%	2-FLUOROPHENOL	(40-140)	78%
2-FLUOROBIPHENYL	(40-140)	76%	PHENOL-D5	(40-140)	78%
TERPHENYL-D14	(40-140)	89%	2,4,6-TRIBROMOPHENOL	(40-140)	83%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

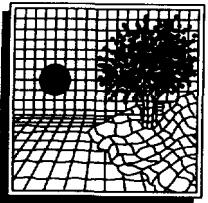
Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986



# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 West Albany • Broken Arrow, Oklahoma 74012 • Office (918) 251-2858 • Fax (918) 251-2599

CLIENT: FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806  
ATTN: KEVIN CASSIL

REPORT: 19550.02DF

DATE: 07-20-94

SAMPLE MATRIX: AIR  
SWLO #: 19550.02  
DATE SAMPLED: 08-03-94  
DATE SUBMITTED: 08-05-94  
DATE EXTRACTED: 08-15-94  
DATE ANALYZED: 08-17-94  
METHOD REFERENCE: SW846-8280  
PROJECT: ARKWOOD  
SAMPLE ID: 0110

RESULTS REPORTED IN ng/puf

<u>ANALYTE</u>	<u>EST. QUANTITATION LIMIT</u>	<u>CONCENTRATION</u>
<u>DIOXINS</u>		
TOTAL TETRA CDD	1.7	ND
TOTAL PENTA CDD	1.6	ND
TOTAL HEXA CDD	2.3	ND
TOTAL HEPTA CDD	3.3	ND
TOTAL OCTA CDD	7.5	ND
<u>FURANS</u>		
TOTAL TETRA CDF	1.0	ND
TOTAL PENTA CDF	1.7	ND
TOTAL HEXA CDF	1.3	ND
TOTAL HEPTA CDF	1.6	ND
TOTAL OCTA CDF	2.9	ND

## QA/QC SURROGATE RECOVERIES

13C-TCDD (25-150)	89%	13C-TCDF (25-150)	85%	13C-HxCDD (25-150)	52%
13C-OCDD (25-150)	43%	13C-HpCDF (25-150)	58%	37CL-TCDD (25-150)	99%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

NA = NOT APPLICABLE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19550.04  
QAQC# : BL081505D  
INST. BATCH: 321824  
REPORTED : 08/17/94

PROJECT : ARKWOOD  
LAB# : 19550.04  
SAMPLE : 0112  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 08/03/94 09:00  
SUBMITTED: 08/05/94  
PREPARED : 08/15/94  
ANALYZED : 08/16/94 15:08  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

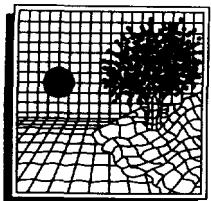
<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	83%	2-FLUOROPHENOL	(40-140)	72%
2-FLUOROBIPHENYL	(40-140)	70%	PHENOL-D5	(40-140)	76%
TERPHENYL-D14	(40-140)	83%	2,4,6-TRIBROMOPHENOL	(40-140)	73%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE  
  
Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION  
  
SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986



# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 West Albany • Broken Arrow, Oklahoma 74012 • Office (918) 251-2858 • Fax (918) 251-2599

CLIENT: FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806  
ATTN: KEVIN CASSIL

REPORT: 19550.04DF

DATE: 07-20-94

SAMPLE MATRIX: AIR  
SWLO #: 19550.04  
DATE SAMPLED: 08-03-94  
DATE SUBMITTED: 08-05-94  
DATE EXTRACTED: 08-15-94  
DATE ANALYZED: 08-17-94  
METHOD REFERENCE: SW846-8280  
PROJECT: ARKWOOD  
SAMPLE ID: 0112

RESULTS REPORTED IN ng/puf

<u>ANALYTE</u>	<u>EST. QUANTITATION LIMIT</u>	<u>CONCENTRATION</u>
<u>DIOXINS</u>		
TOTAL TETRA CDD	2.1	ND
TOTAL PENTA CDD	2.9	ND
TOTAL HEXA CDD	2.1	ND
TOTAL HEPTA CDD	2.6	ND
TOTAL OCTA CDD	8.9	ND
<u>FURANS</u>		
TOTAL TETRA CDF	0.6	ND
TOTAL PENTA CDF	1.2	ND
TOTAL HEXA CDF	1.0	ND
TOTAL HEPTA CDF	3.0	ND
TOTAL OCTA CDF	6.1	ND

#### QA/QC SURROGATE RECOVERIES

13C-TCDD (25-150)	68%	13C-TCDF (25-150)	68%	13C-HxCDD (25-150)	45%
13C-OCDD (25-150)	35%	13C-HpCDF (25-150)	48%	37CL-TCDD (25-150)	97%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

NA = NOT APPLICABLE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19550.05  
QAQC# : BL081505D  
INST. BATCH: 321824  
REPORTED : 08/17/94

PROJECT : ARKWOOD  
LAB# : 19550.05  
SAMPLE : 0113  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 08/03/94 09:00  
SUBMITTED: 08/05/94  
PREPARED : 08/15/94  
ANALYZED : 08/16/94 15:41  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	83%	2-FLUOROPHENOL	(40-140)	62%
2-FLUOROBIPHENYL	(40-140)	73%	PHENOL-D5	(40-140)	66%
TERPHENYL-D14	(40-140)	91%	2,4,6-TRIBROMOPHENOL	(40-140)	82%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

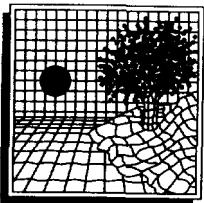
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986



# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 West Albany • Broken Arrow, Oklahoma 74012 • Office (918) 251-2858 • Fax (918) 251-2599

CLIENT: FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806  
ATTN: KEVIN CASSIL

REPORT: 19550.05DF

DATE: 07-20-94

SAMPLE MATRIX: AIR  
SWLO #: 19550.05  
DATE SAMPLED: 08-03-94  
DATE SUBMITTED: 08-05-94  
DATE EXTRACTED: 08-15-94  
DATE ANALYZED: 08-17-94  
METHOD REFERENCE: SW846-8280  
PROJECT: ARKWOOD  
SAMPLE ID: 0113

RESULTS REPORTED IN ng/puf

<u>ANALYTE</u>	<u>EST. QUANTITATION LIMIT</u>	<u>CONCENTRATION</u>
<u>DIOXINS</u>		
TOTAL TETRA CDD	1.1	ND
TOTAL PENTA CDD	1.4	ND
TOTAL HEXA CDD	1.7	ND
TOTAL HEPTA CDD	3.8	ND
TOTAL OCTA CDD	10.4	ND
<u>FURANS</u>		
TOTAL TETRA CDF	1.0	ND
TOTAL PENTA CDF	1.1	ND
TOTAL HEXA CDF	1.2	ND
TOTAL HEPTA CDF	1.1	ND
TOTAL OCTA CDF	2.3	ND

#### QA/QC SURROGATE RECOVERIES

13C-TCDD (25-150)	80%	13C-TCDF (25-150)	80%	13C-HxCDD (25-150)	52%
13C-OCDD (25-150)	43%	13C-HpCDF (25-150)	55%	37CL-TCDD (25-150)	101%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

NA = NOT APPLICABLE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19529.01  
QAQC# : BL081504D  
INST. BATCH: 421533  
REPORTED : 08/17/94

PROJECT : ARKWOOD  
LAB# : 19529.01  
SAMPLE : 0097  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

**DEPARTMENT**

ANALYST: 603

SAMPLED : 08/01/94 00:00  
SUBMITTED: 08/03/94  
PREPARED : 08/15/94  
ANALYZED : 08/16/94 17:41  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND		BENZO (A) PYRENE	4	ND	
CHRYSENE	4	ND		INDENO (1,2,3-CD) PYRENE	2	ND	
BENZO (B) FLUORANTHENE	8	ND		DIBENZ (A,H) ANTHRACENE	6	ND	
BENZO (K) FLUORANTHENE	8	ND		PENTACHLOROPHENOL	12	ND	

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	75%	2-FLUOROPHENOL	(40-140)	64%
2-FLUOROBIPHENYL	(40-140)	82%	PHENOL-D5	(40-140)	63%
TERPHENYL-D14	(40-140)	90%	2,4,6-TRIBROMOPHENOL	(40-140)	71%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

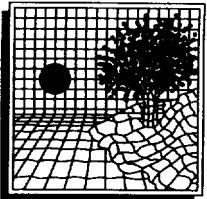
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986



# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 West Albany • Broken Arrow, Oklahoma 74012 • Office (918) 251-2858 • Fax (918) 251-2599

CLIENT: FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806  
ATTN: KEVIN CASSIL

REPORT: 19529.01DF

DATE: 07-20-94

SAMPLE MATRIX: AIR  
SWLO #: 19529.01  
DATE SAMPLED: 08-01-94  
DATE SUBMITTED: 08-03-94  
DATE EXTRACTED: 08-15-94  
DATE ANALYZED: 08-17-94  
METHOD REFERENCE: SW846-8280  
PROJECT: ARKWOOD  
SAMPLE ID: 0097

RESULTS REPORTED IN ng/puf

ANALYTE	EST. QUANTITATION	
	LIMIT	CONCENTRATION
<b>DIOXINS</b>		
TOTAL TETRA CDD	2.7	ND
TOTAL PENTA CDD	3.3	ND
TOTAL HEXA CDD	1.1	ND
TOTAL HEPTA CDD	3.8	ND
TOTAL OCTA CDD	11.8	ND
<b>FURANS</b>		
TOTAL TETRA CDF	0.8	ND
TOTAL PENTA CDF	1.5	ND
TOTAL HEXA CDF	1.1	ND
TOTAL HEPTA CDF	3.0	ND
TOTAL OCTA CDF	2.5	ND

### QA/QC SURROGATE RECOVERIES

13C-TCDD (25-150)	80%	13C-TCDF (25-150)	81%	13C-HxCDD (25-150)	45%
13C-OCDD (25-150)	37%	13C-HpCDF (25-150)	48%	37CL-TCDD (25-150)	93%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

NA = NOT APPLICABLE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19529.02  
QAQC# : BL081504D  
INST. BATCH: 421533  
REPORTED : 08/17/94

PROJECT : ARKWOOD  
LAB# : 19529.02  
SAMPLE : 0098  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 08/01/94 00:00  
SUBMITTED: 08/03/94  
PREPARED : 08/15/94  
ANALYZED : 08/16/94 18:15  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	77%	2-FLUOROPHENOL	(40-140)	66%
2-FLUOROBIPHENYL	(40-140)	83%	PHENOL-D5	(40-140)	65%
TERPHENYL-D14	(40-140)	86%	2,4,6-TRIBROMOPHENOL	(40-140)	71%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

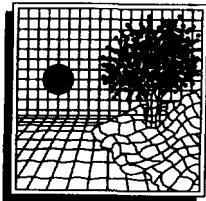
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986



# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 West Albany • Broken Arrow, Oklahoma 74012 • Office (918) 251-2858 • Fax (918) 251-2599

CLIENT: FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806  
ATTN: KEVIN CASSIL

REPORT: 19529.02DF

DATE: 07-20-94

SAMPLE MATRIX: AIR  
SWLO #: 19529.02  
DATE SAMPLED: 08-01-94  
DATE SUBMITTED: 08-03-94  
DATE EXTRACTED: 08-15-94  
DATE ANALYZED: 08-17-94  
METHOD REFERENCE: SW846-8280  
PROJECT: ARKWOOD  
SAMPLE ID: 0098

RESULTS REPORTED IN ng/puf

ANALYTE	EST. QUANTITATION	
	LIMIT	CONCENTRATION
<u>DIOXINS</u>		
TOTAL TETRA CDD	0.8	ND
TOTAL PENTA CDD	5.5	ND
TOTAL HEXA CDD	4.8	ND
TOTAL HEPTA CDD	8.0	ND
TOTAL OCTA CDD	27.3	ND

#### FURANS

TOTAL TETRA CDF	1.4	ND
TOTAL PENTA CDF	2.5	ND
TOTAL HEXA CDF	0.9	ND
TOTAL HEPTA CDF	3.2	ND
TOTAL OCTA CDF	8.6	ND

#### QA/QC SURROGATE RECOVERIES

13C-TCDD (25-150)	65%	13C-TCDF (25-150)	68%	13C-HxCDD (25-150)	40%
13C-OCDD (25-150)	32%	13C-HpCDF (25-150)	43%	37CL-TCDD (25-150)	96%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

NA = NOT APPLICABLE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19529.03  
SAMPLE : 0102  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

REPORT: 19529.03  
QAQC# : BL081504D  
INST. BATCH: 421533  
REPORTED : 08/17/94  
  
SAMPLED : 08/01/94 00:00  
SUBMITTED: 08/03/94  
PREPARED : 08/15/94  
ANALYZED : 08/16/94 18:49  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1, 2, 3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

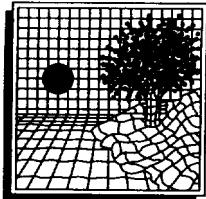
NITROBENZENE-D5	(40-140)	75%	2-FLUOROPHENOL	(40-140)	62%
2-FLUOROBIPHENYL	(40-140)	83%	PHENOL-D5	(40-140)	64%
TERPHENYL-D14	(40-140)	88%	2, 4, 6-TRIBROMOPHENOL	(40-140)	70%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986



# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 West Albany • Broken Arrow, Oklahoma 74012 • Office (918) 251-2858 • Fax (918) 251-2599

CLIENT: FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806  
ATTN: KEVIN CASSIL

REPORT: 19529.03DF

DATE: 07-20-94

SAMPLE MATRIX: AIR  
SWLO #: 19529.03  
DATE SAMPLED: 08-01-94  
DATE SUBMITTED: 08-03-94  
DATE EXTRACTED: 08-15-94  
DATE ANALYZED: 08-17-94  
METHOD REFERENCE: SW846-8280  
PROJECT: ARKWOOD  
SAMPLE ID: 0102

RESULTS REPORTED IN ng/puf

ANALYTE	EST. QUANTITATION	
	LIMIT	CONCENTRATION
<u>DIOXINS</u>		
TOTAL TETRA CDD	3.9	ND
TOTAL PENTA CDD	2.9	ND
TOTAL HEXA CDD	3.0	ND
TOTAL HEPTA CDD	4.4	ND
TOTAL OCTA CDD	5.4	ND

#### FURANS

TOTAL TETRA CDF	0.7	ND
TOTAL PENTA CDF	1.3	ND
TOTAL HEXA CDF	2.3	ND
TOTAL HEPTA CDF	4.7	ND
TOTAL OCTA CDF	4.8	ND

#### QA/QC SURROGATE RECOVERIES

13C-TCDD (25-150)	85%	13C-TCDF (25-150)	86%	13C-HxCDD (25-150)	50%
13C-OCDD (25-150)	34%	13C-HpCDF (25-150)	49%	37CL-TCDD (25-150)	94%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

NA = NOT APPLICABLE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19576.02  
QAQC# : BL081505D  
INST. BATCH: 321824  
REPORTED : 08/17/94

PROJECT : ARKWOOD  
LAB# : 19576.02  
SAMPLE : 0122  
LOCATION: -----  
  
MATRIX : AIR  
METHOD : SW 8270

AUG 23 1994  
LTSGLTGL  
SAMPLER : 08/05/94 07:30  
SUBMITTED: 08/09/94  
PREPARED : 08/15/94  
ANALYZED : 08/16/94 16:14  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	74%	2-FLUOROPHENOL	(40-140)	62%
2-FLUOROBIPHENYL	(40-140)	78%	PHENOL-D5	(40-140)	62%
TERPHENYL-D14	(40-140)	90%	2,4,6-TRIBROMOPHENOL	(40-140)	82%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

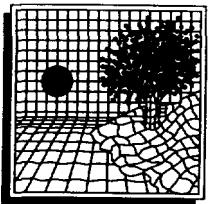
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986



# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 West Albany • Broken Arrow, Oklahoma 74012 • Office (918) 251-2858 • Fax (918) 251-2599

CLIENT: FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806  
ATTN: KEVIN CASSIL

REPORT: 19576.02DF

DATE: 08-22-94

SAMPLE MATRIX: AIR  
SWLO #: 19576.02  
DATE SAMPLED: 08-05-94  
DATE SUBMITTED: 08-09-94  
DATE EXTRACTED: 08-15-94  
DATE ANALYZED: 08-17-94  
METHOD REFERENCE: SW846-8280  
PROJECT: ARKWOOD  
SAMPLE ID: 0122

RESULTS REPORTED IN Parts Per Trillion (ng/puf)

<u>ANALYTE</u>	<u>EST. QUANTITATION LIMIT</u>	<u>CONCENTRATION</u>
<u>DIOXINS</u>		
TOTAL TETRA CDD	1.9	ND
TOTAL PENTA CDD	2.0	ND
TOTAL HEXA CDD	1.3	ND
TOTAL HEPTA CDD	1.8	ND
TOTAL OCTA CDD	3.5	ND
<u>FURANS</u>		
TOTAL TETRA CDF	0.9	ND
TOTAL PENTA CDF	1.0	ND
TOTAL HEXA CDF	0.5	ND
TOTAL HEPTA CDF	3.1	ND
TOTAL OCTA CDF	5.4	ND

#### QA/QC SURROGATE RECOVERIES

13C-TCDD (25-150)	83%	13C-TCDF (25-150)	85%	13C-HxCDD (25-150)	65%
13C-OCDD (25-150)	56%	13C-HpCDF (25-150)	66%	37C14-TCDD (25-150)	85%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

NA = NOT APPLICABLE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19576.04  
QAQC# : BL081505D  
INST. BATCH: 321824  
REPORTED : 08/17/94

PROJECT : ARKWOOD  
LAB# : 19576.04  
SAMPLE : 0124  
LOCATION:  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 08/05/94 07:30  
SUBMITTED: 08/09/94  
PREPARED : 08/15/94  
ANALYZED : 08/16/94 18:24  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO (1, 2, 3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	70%	2-FLUOROPHENOL	(40-140)	68%
2-FLUOROBIPHENYL	(40-140)	70%	PHENOL-D5	(40-140)	65%
TERPHENYL-D14	(40-140)	80%	2, 4, 6-TRIBROMOPHENOL	(40-140)	72%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

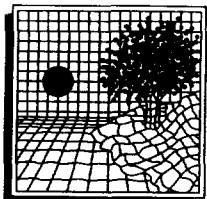
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986



# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 West Albany • Broken Arrow, Oklahoma 74012 • Office (918) 251-2858 • Fax (918) 251-2599

CLIENT: FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806  
ATTN: KEVIN CASSIL

REPORT: 19576.04DF

DATE: 08-22-94

SAMPLE MATRIX: AIR  
SWLO #: 19576.04  
DATE SAMPLED: 08-05-94  
DATE SUBMITTED: 08-09-94  
DATE EXTRACTED: 08-15-94  
DATE ANALYZED: 08-17-94  
METHOD REFERENCE: SW846-8280  
PROJECT: ARKWOOD  
SAMPLE ID: 0124

RESULTS REPORTED IN Parts Per Trillion (ng/puf)

<u>ANALYTE</u>	<u>EST. QUANTITATION LIMIT</u>	<u>CONCENTRATION</u>
<u>DIOXINS</u>		
TOTAL TETRA CDD	1.2	ND
TOTAL PENTA CDD	1.1	ND
TOTAL HEXA CDD	1.6	ND
TOTAL HEPTA CDD	5.8	ND
TOTAL OCTA CDD	3.7	ND
<u>FURANS</u>		
TOTAL TETRA CDF	1.6	ND
TOTAL PENTA CDF	1.9	ND
TOTAL HEXA CDF	0.9	ND
TOTAL HEPTA CDF	1.8	ND
TOTAL OCTA CDF	7.8	ND

#### QA/QC SURROGATE RECOVERIES

13C-TCDD (25-150)	88%	13C-TCDF (25-150)	91%	13C-HxCDD (25-150)	68%
13C-OCDD (25-150)	58%	13C-HpCDF (25-150)	74%	37C14-TCDD (25-150)	107%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

NA = NOT APPLICABLE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19576.05  
QAQC# : BL081505D  
INST. BATCH: 321824  
REPORTED : 08/17/94

PROJECT : ARKWOOD  
LAB# : 19576.05  
SAMPLE : 0125  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 08/05/94 07:30  
SUBMITTED: 08/09/94  
PREPARED : 08/15/94  
ANALYZED : 08/16/94 17:19  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1, 2, 3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A, H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	70%	2-FLUOROPHENOL	(40-140)	63%
2-FLUOROBIPHENYL	(40-140)	66%	PHENOL-D5	(40-140)	63%
TERPHENYL-D14	(40-140)	80%	2, 4, 6-TRIBROMOPHENOL	(40-140)	76%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

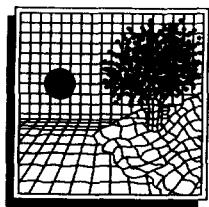
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986



# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 West Albany • Broken Arrow, Oklahoma 74012 • Office (918) 251-2858 • Fax (918) 251-2599

CLIENT: FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806  
ATTN: KEVIN CASSIL

REPORT: 19576.05DF

DATE: 08-22-94

SAMPLE MATRIX: AIR  
SWLO #: 19576.05  
DATE SAMPLED: 08-05-94  
DATE SUBMITTED: 08-09-94  
DATE EXTRACTED: 08-15-94  
DATE ANALYZED: 08-17-94  
METHOD REFERENCE: SW846-8280  
PROJECT: ARKWOOD  
SAMPLE ID: 0125

RESULTS REPORTED IN Parts Per Trillion (ng/puf)

<u>ANALYTE</u>	<u>EST. QUANTITATION LIMIT</u>	<u>CONCENTRATION</u>
<u>DIOXINS</u>		
TOTAL TETRA CDD	1.8	ND
TOTAL PENTA CDD	3.3	ND
TOTAL HEXA CDD	3.1	ND
TOTAL HEPTA CDD	4.6	ND
TOTAL OCTA CDD	2.5	ND

#### FURANS

TOTAL TETRA CDF	2.7	ND
TOTAL PENTA CDF	0.8	ND
TOTAL HEXA CDF	1.0	ND
TOTAL HEPTA CDF	1.0	ND
TOTAL OCTA CDF	1.9	ND

#### QA/QC SURROGATE RECOVERIES

13C-TCDD (25-150)	86%	13C-TCDF (25-150)	86%	13C-HxCDD (25-150)	65%
13C-OCDD (25-150)	52%	13C-HpCDF (25-150)	69%	37C14-TCDD (25-150)	104%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

NA = NOT APPLICABLE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19540.02  
SAMPLE : 0104  
LOCATION:

MATRIX : AIR  
METHOD : SW 8270

REPORT: 19540.02  
QAQC# : BL081504D  
INST. BATCH: 421533  
REPORTED : 08/17/94

SAMPLED : 08/02/94 09:00  
SUBMITTED: 08/04/94  
PREPARED : 08/15/94  
ANALYZED : 08/16/94 19:23  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND		BENZO(A) PYRENE	4	ND	
CHRYSENE	4	ND		INDENO(1,2,3-CD) PYRENE	2	ND	
BENZO(B) FLUORANTHENE	8	ND		DIBENZ(A,H) ANTHRACENE	6	ND	
BENZO(K) FLUORANTHENE	8	ND		PENTACHLOROPHENOL	12	ND	

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	76%	2-FLUOROPHENOL	(40-140)	65%
2-FLUOROBIPHENYL	(40-140)	82%	PHENOL-D5	(40-140)	63%
TERPHENYL-D14	(40-140)	90%	2,4,6-TRIBROMOPHENOL	(40-140)	70%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

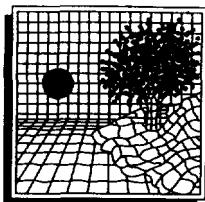
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986



# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 West Albany • Broken Arrow, Oklahoma 74012 • Office (918) 251-2858 • Fax (918) 251-2599

CLIENT: FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806  
ATTN: KEVIN CASSIL

REPORT: 19540.02DF

DATE: 07-20-94

SAMPLE MATRIX: AIR  
SWLO #: 19540.02  
DATE SAMPLED: 08-02-94  
DATE SUBMITTED: 08-04-94  
DATE EXTRACTED: 08-15-94  
DATE ANALYZED: 08-17-94  
METHOD REFERENCE: SW846-8280  
PROJECT: ARKWOOD  
SAMPLE ID: 0104

RESULTS REPORTED IN ng/puf

<u>ANALYTE</u>	<u>EST. QUANTITATION LIMIT</u>	<u>CONCENTRATION</u>
<u>DIOXINS</u>		
TOTAL TETRA CDD	1.7	ND
TOTAL PENTA CDD	2.2	ND
TOTAL HEXA CDD	2.6	ND
TOTAL HEPTA CDD	3.7	ND
TOTAL OCTA CDD	5.6	ND
<u>FURANS</u>		
TOTAL TETRA CDF	0.7	ND
TOTAL PENTA CDF	1.9	ND
TOTAL HEXA CDF	0.5	ND
TOTAL HEPTA CDF	1.5	ND
TOTAL OCTA CDF	6.4	ND

## QA/QC SURROGATE RECOVERIES

13C-TCDD (25-150)	87%	13C-TCDF (25-150)	90%	13C-HxCDD (25-150)	69%
13C-OCDD (25-150)	56%	13C-HpCDF (25-150)	75%	37CL-TCDD (25-150)	99%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

NA = NOT APPLICABLE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19562.01  
SAMPLE : 0115  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

REPORT: 19562.01  
QAQC# : BL080601D  
INST. BATCH: 321113  
REPORTED : 08/16/94

SAMPLED : 08/04/94 07:30  
SUBMITTED: 08/06/94  
PREPARED : 08/06/94  
ANALYZED : 08/08/94 11:23  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : MED

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.			PARAMETER	QUANT.		
	LIMIT	RESULTS			LIMIT	RESULTS	
BENZO (A) ANTHRACENE	4	ND		BENZO (A) PYRENE	4	ND	
CHRYSENE	4	ND		INDENO(1,2,3-CD) PYRENE	2	ND	
BENZO (B) FLUORANTHENE	8	ND		DIBENZ (A,H) ANTHRACENE	6	ND	
BENZO (K) FLUORANTHENE	8	ND		PENTACHLOROPHENOL	12	3	J

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	100%	2 - FLUOROPHENOL	(40-140)	94%
2 - FLUOROBIPHENYL	(40-140)	93%	PHENOL-D5	(40-140)	105%
TERPHENYL-D14	(40-140)	119%	2, 4, 6 - TRIBROMOPHENOL	(40-140)	143% *

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19562.02  
QAQC# : BL080601D  
INST. BATCH: 321113  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19562.02  
SAMPLE : 0119  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 08/04/94 07:30  
SUBMITTED: 08/06/94  
PREPARED : 08/06/94  
ANALYZED : 08/08/94 11:54  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : MED

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	95%	2-FLUOROPHENOL	(40-140)	90%
2-FLUOROBIPHENYL	(40-140)	96%	PHENOL-D5	(40-140)	94%
TERPHENYL-D14	(40-140)	112%	2,4,6-TRIBROMOPHENOL	(40-140)	106%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19562.03  
QAQC# : BL080601D  
INST. BATCH: 321113  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19562.03  
SAMPLE : 0117  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 08/04/94 07:30  
SUBMITTED: 08/06/94  
PREPARED : 08/06/94  
ANALYZED : 08/08/94 12:26  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : MED

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT. <u>LIMIT</u> <u>RESULTS</u>		<u>PARAMETER</u>	QUANT. <u>LIMIT</u> <u>RESULTS</u>	
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	98%	2-FLUOROPHENOL	(40-140)	91%
2-FLUOROBIPHENYL	(40-140)	92%	PHENOL-D5	(40-140)	93%
TERPHENYL-D14	(40-140)	118%	2,4,6-TRIBROMOPHENOL	(40-140)	125%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19562.04  
QAQC# : BL080601D  
INST. BATCH: 321113  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19562.04  
SAMPLE : 0118  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 08/04/94 07:30  
SUBMITTED: 08/06/94  
PREPARED : 08/06/94  
ANALYZED : 08/08/94 12:57  
DILUTION : 2  
  
%MOISTURE: 0.00  
LEVEL : MED

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	92%	2-FLUOROPHENOL	(40-140)	91%
2-FLUOROBIPHENYL	(40-140)	94%	PHENOL-D5	(40-140)	94%
TERPHENYL-D14	(40-140)	108%	2,4,6-TRIBROMOPHENOL	(40-140)	113%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19562.05  
QAQC# : BL080601D  
INST. BATCH: 321113  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19562.05  
SAMPLE : 0120  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 08/04/94 07:30  
SUBMITTED: 08/06/94  
PREPARED : 08/06/94  
ANALYZED : 08/08/94 13:29  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : MED

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	96%	2-FLUOROPHENOL	(40-140)	90%
2-FLUOROBIPHENYL	(40-140)	103%	PHENOL-D5	(40-140)	92%
TERPHENYL-D14	(40-140)	108%	2,4,6-TRIBROMOPHENOL	(40-140)	115%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19562.06  
QAQC# : BL080601D  
INST. BATCH: 321113  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19562.06  
SAMPLE : 0116  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 08/04/94 07:30  
SUBMITTED: 08/06/94  
PREPARED : 08/06/94  
ANALYZED : 08/08/94 14:00  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : MED

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	92%	2-FLUOROPHENOL	(40-140)	83%
2-FLUOROBIPHENYL	(40-140)	90%	PHENOL-D5	(40-140)	88%
TERPHENYL-D14	(40-140)	104%	2,4,6-TRIBROMOPHENOL	(40-140)	129%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL080601D  
INST. BATCH: 321113  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : METHOD BLANK  
SAMPLE : BL080601D  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

PREPARED : 08/06/94  
ANALYZED : 08/08/94 09:49  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : MED

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.		
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>	
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND	
CHRYSENE	4	2	J	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND	
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND	

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	87%	2-FLUOROPHENOL	(40-140)	85%
2-FLUOROBIPHENYL	(40-140)	90%	PHENOL-D5	(40-140)	86%
TERPHENYL-D14	(40-140)	103%	2,4,6-TRIBROMOPHENOL	(40-140)	102%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL080601D  
INST. BATCH: 321113  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
SPIKE SAMPLE : LCS  
SPIKE DUP SAMPLE: LCSD

MATRIX : AIR  
ANALYZED : 08/08/94 10:20  
ANALYZED : 08/08/94 10:51

BNA BY GC/MS NONSTANDARD  
SPIKE/SPIKE DUPLICATE RECOVERY

Parameter	ug/puf	SPIKE AMOUNT	SPIKE CONC.	SPIKE %Rec	DUP CONC.	DUP %Rec	RPD	MAX RPD	LIMITS %Rec.
PENTACHLOROPHENOL		200	190	96	190	97	< 1	39	40-140

## QA/QC SURROGATE RECOVERIES

Parameter	SPIKE %Rec	DUP %Rec	Limits
NITROBENZENE-D5	98	96	40-140
2-FLUOROPHENOL	95	96	40-140
2-FLUOROBIPHENYL	94	94	40-140
PHENOL-D5	103	100	40-140
TERPHENYL-D14	108	100	40-140
2,4,6-TRIBROMOPHENOL	108	110	40-140

RECOVERIES AND RPDs ARE CALCULATED USING INSTRUMENT READINGS PRIOR TO  
ROUNDING THE SPIKE AND DUPLICATE CONCENTRATIONS TO TWO SIGNIFICANT FIGURES.

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.01  
QAQC# : BL070601D  
INST. BATCH: 317921  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.01  
SAMPLE : 0026  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/01/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/07/94 18:52  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf      ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO (1, 2, 3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	80%	2-FLUOROPHENOL	(40-140)	80%
2-FLUOROBIPHENYL	(40-140)	80%	PHENOL-D5	(40-140)	91%
TERPHENYL-D14	(40-140)	109%	2, 4, 6-TRIBROMOPHENOL	(40-140)	100%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

D = SURROGATES DILUTED OUT

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

EPA = #EPA600/4-79-020, MARCH 1985

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.02  
QAQC# : BL070601D  
INST. BATCH: 317921  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.02  
SAMPLE : 0027  
LOCATION:  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/01/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/07/94 19:25  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	82%	2-FLUOROPHENOL	(40-140)	75%
2-FLUOROBIPHENYL	(40-140)	78%	PHENOL-D5	(40-140)	81%
TERPHENYL-D14	(40-140)	108%	2,4,6-TRIBROMOPHENOL	(40-140)	94%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.03  
QAQC# : BL070601D  
INST. BATCH: 317921  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.03  
SAMPLE : 0029  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/01/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/07/94 19:58  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	84%	2-FLUOROPHENOL	(40-140)	77%
2-FLUOROBIPHENYL	(40-140)	76%	PHENOL-D5	(40-140)	89%
TERPHENYL-D14	(40-140)	99%	2,4,6-TRIBROMOPHENOL	(40-140)	104%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.04  
QAQC# : BL070601D  
INST. BATCH: 317921  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.04  
SAMPLE : 0025  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/01/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/07/94 20:31  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO (1, 2, 3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	82%	2-FLUOROPHENOL	(40-140)	71%
2-FLUOROBIPHENYL	(40-140)	84%	PHENOL-D5	(40-140)	74%
TERPHENYL-D14	(40-140)	106%	2, 4, 6-TRIBROMOPHENOL	(40-140)	94%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE  
Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION  
SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.05  
QAQC# : BL070601D  
INST. BATCH: 317921  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.05  
SAMPLE : 0030  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/01/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/07/94 21:04  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf      ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	88%	2-FLUOROPHENOL	(40-140)	85%
2-FLUOROBIPHENYL	(40-140)	93%	PHENOL-D5	(40-140)	94%
TERPHENYL-D14	(40-140)	112%	2,4,6-TRIBROMOPHENOL	(40-140)	124%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

D = SURROGATES DILUTED OUT

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

EPA = #EPA600/4-79-020, MARCH 1985

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.06  
QAQC# : BL070601D  
INST. BATCH: 317921  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.06  
SAMPLE : 0028  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/01/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/07/94 21:37  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND		BENZO (A) PYRENE	4	ND	
CHRYSENE	4	ND		INDENO (1,2,3-CD) PYRENE	2	ND	
BENZO (B) FLUORANTHENE	8	ND		DIBENZ (A,H) ANTHRACENE	6	ND	
BENZO (K) FLUORANTHENE	8	ND		PENTACHLOROPHENOL	12	ND	

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	77%	2-FLUOROPHENOL	(40-140)	69%
2-FLUOROBIPHENYL	(40-140)	86%	PHENOL-D5	(40-140)	78%
TERPHENYL-D14	(40-140)	96%	2,4,6-TRIBROMOPHENOL	(40-140)	87%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.07  
QAQC# : BL070601  
INST. BATCH: 417918  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.07  
SAMPLE : 0036  
LOCATION:  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/02/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 09:48  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/PUF ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	85%	2-FLUOROPHENOL	(40-140)	72%
2-FLUOROBIPHENYL	(40-140)	91%	PHENOL-D5	(40-140)	89%
TERPHENYL-D14	(40-140)	88%	2,4,6-TRIBROMOPHENOL	(40-140)	100%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.08  
QAQC# : BL070601D  
INST. BATCH: 317921  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.08  
SAMPLE : 0032  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/02/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/07/94 22:42  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	76%	2-FLUOROPHENOL	(40-140)	72%
2-FLUOROBIPHENYL	(40-140)	76%	PHENOL-D5	(40-140)	83%
TERPHENYL-D14	(40-140)	109%	2,4,6-TRIBROMOPHENOL	(40-140)	101%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.09  
QAQC# : BL070601  
INST. BATCH: 417918  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.09  
SAMPLE : 0033  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/02/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 12:28  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/PUF ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENENE	8	ND	PENTACHLOROPHENOL	12	2 J

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	84%	2-FLUOROPHENOL	(40-140)	70%
2-FLUOROBIPHENYL	(40-140)	91%	PHENOL-D5	(40-140)	89%
TERPHENYL-D14	(40-140)	95%	2,4,6-TRIBROMOPHENOL	(40-140)	94%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.10  
QAQC# : BL070601  
INST. BATCH: 417918  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.10  
SAMPLE : 0035  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/02/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 12:54  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/PUF      ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	66%	2-FLUOROPHENOL	(40-140)	59%
2-FLUOROBIPHENYL	(40-140)	71%	PHENOL-D5	(40-140)	81%
TERPHENYL-D14	(40-140)	91%	2,4,6-TRIBROMOPHENOL	(40-140)	86%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.11  
QAQC# : BL070601  
INST. BATCH: 417918  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.11  
SAMPLE : 0034  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/02/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 13:21  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/PUF ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	82%	2-FLUOROPHENOL	(40-140)	74%
2-FLUOROBIPHENYL	(40-140)	87%	PHENOL-D5	(40-140)	93%
TERPHENYL-D14	(40-140)	96%	2,4,6-TRIBROMOPHENOL	(40-140)	92%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.12  
QAQC# : BL070601  
INST. BATCH: 417918  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.12  
SAMPLE : 0031  
LOCATION:  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/02/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 13:48  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/PUF ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	84%	2-FLUOROPHENOL	(40-140)	76%
2-FLUOROBIPHENYL	(40-140)	88%	PHENOL-D5	(40-140)	97%
TERPHENYL-D14	(40-140)	94%	2,4,6-TRIBROMOPHENOL	(40-140)	95%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.13  
QAQC# : BL070601  
INST. BATCH: 417918  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.13  
SAMPLE : 0038  
LOCATION:  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/03/94 13:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 14:14  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/PUF ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND		BENZO(A) PYRENE	4	ND	
CHRYSENE	4	ND		INDENO(1,2,3-CD) PYRENE	2	ND	
BENZO(B) FLUORANTHENE	8	ND		DIBENZ(A,H) ANTHRACENE	6	ND	
BENZO(K) FLUORANTHENE	8	ND		PENTACHLOROPHENOL	12	ND	

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	69%	2-FLUOROPHENOL	(40-140)	60%
2-FLUOROBIPHENYL	(40-140)	72%	PHENOL-D5	(40-140)	76%
TERPHENYL-D14	(40-140)	80%	2,4,6-TRIBROMOPHENOL	(40-140)	73%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.14  
QAQC# : BL070601  
INST. BATCH: 417918  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.14  
SAMPLE : 0037  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/03/94 13:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 14:41  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/PUF ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	68%	2-FLUOROPHENOL	(40-140)	65%
2-FLUOROBIPHENYL	(40-140)	71%	PHENOL-D5	(40-140)	89%
TERPHENYL-D14	(40-140)	87%	2,4,6-TRIBROMOPHENOL	(40-140)	81%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.15  
QAQC# : BL070601D  
INST. BATCH: 318027  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.15  
SAMPLE : 0041  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/03/94 13:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 12:21  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	68%	2-FLUOROPHENOL	(40-140)	66%
2-FLUOROBIPHENYL	(40-140)	71%	PHENOL-D5	(40-140)	73%
TERPHENYL-D14	(40-140)	102%	2,4,6-TRIBROMOPHENOL	(40-140)	71%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.16  
QAQC# : BL070601D  
INST. BATCH: 318027  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.16  
SAMPLE : 0040  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/03/94 13:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 15:07  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	76%	2-FLUOROPHENOL	(40-140)	79%
2-FLUOROBIPHENYL	(40-140)	76%	PHENOL-D5	(40-140)	86%
TERPHENYL-D14	(40-140)	101%	2,4,6-TRIBROMOPHENOL	(40-140)	92%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19270.17  
SAMPLE : 0042  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

REPORT: 19270.17  
QAQC# : BL070601D  
INST. BATCH: 318027  
REPORTED : 08/16/94

SAMPLED : 07/03/94 13:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 13:28  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO (1, 2, 3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	71%	2-FLUOROPHENOL	(40-140)	80%
2-FLUOROBIPHENYL	(40-140)	88%	PHENOL-D5	(40-140)	85%
TERPHENYL-D14	(40-140)	107%	2, 4, 6-TRIBROMOPHENOL	(40-140)	89%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION  
  
SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.18  
QAQC# : BL070601D  
INST. BATCH: 318027  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.18  
SAMPLE : 0039  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/03/94 13:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 15:40  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO (1, 2, 3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	69%	2-FLUOROPHENOL	(40-140)	63%
2-FLUOROBIPHENYL	(40-140)	80%	PHENOL-D5	(40-140)	68%
TERPHENYL-D14	(40-140)	99%	2, 4, 6-TRIBROMOPHENOL	(40-140)	86%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.19  
QAQC# : BL070601  
INST. BATCH: 417918  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.19  
SAMPLE : 0043  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/04/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 15:35  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/PUF ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	73%	2-FLUOROPHENOL	(40-140)	64%
2-FLUOROBIPHENYL	(40-140)	76%	PHENOL-D5	(40-140)	82%
TERPHENYL-D14	(40-140)	101%	2,4,6-TRIBROMOPHENOL	(40-140)	86%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.20  
QAQC# : BL070601  
INST. BATCH: 417918  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.20  
SAMPLE : 0044  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/04/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 15:08  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/PUF ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1, 2, 3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	81%	2-FLUOROPHENOL	(40-140)	68%
2-FLUOROBIPHENYL	(40-140)	86%	PHENOL-D5	(40-140)	92%
TERPHENYL-D14	(40-140)	98%	2, 4, 6-TRIBROMOPHENOL	(40-140)	88%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.21  
QAQC# : BL070601D  
INST. BATCH: 317921  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.21  
SAMPLE : 0045  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/04/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/07/94 23:15  
DILUTION : 2  
  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	82%	2-FLUOROPHENOL	(40-140)	80%
2-FLUOROBIPHENYL	(40-140)	80%	PHENOL-D5	(40-140)	86%
TERPHENYL-D14	(40-140)	110%	2,4,6-TRIBROMOPHENOL	(40-140)	100%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.22  
QAQC# : BL070601  
INST. BATCH: 417918  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.22  
SAMPLE : 0046  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/04/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 11:08  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/PUF ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	76%	2-FLUOROPHENOL	(40-140)	68%
2-FLUOROBIPHENYL	(40-140)	79%	PHENOL-D5	(40-140)	95%
TERPHENYL-D14	(40-140)	103%	2,4,6-TRIBROMOPHENOL	(40-140)	97%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.23  
QAQC# : BL070601  
INST. BATCH: 417918  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.23  
SAMPLE : 0047  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/04/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 11:34  
DILUTION : 2  
  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/PUF ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	4 J

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	81%	2-FLUOROPHENOL	(40-140)	74%
2-FLUOROBIPHENYL	(40-140)	87%	PHENOL-D5	(40-140)	96%
TERPHENYL-D14	(40-140)	98%	2,4,6-TRIBROMOPHENOL	(40-140)	96%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

D = SURROGATES DILUTED OUT

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

EPA = #EPA600/4-79-020, MARCH 1985

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19270.24  
QAQC# : BL070601  
INST. BATCH: 417918  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19270.24  
SAMPLE : 0048  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/04/94 10:00  
SUBMITTED: 07/06/94  
PREPARED : 07/06/94  
ANALYZED : 07/08/94 12:01  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/PUF ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	86%	2-FLUOROPHENOL	(40-140)	82%
2-FLUOROBIPHENYL	(40-140)	89%	PHENOL-D5	(40-140)	109%
TERPHENYL-D14	(40-140)	101%	2,4,6-TRIBROMOPHENOL	(40-140)	105%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

D = SURROGATES DILUTED OUT

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

EPA = #EPA600/4-79-020, MARCH 1985

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL070601D  
INST. BATCH: 317921  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : METHOD BLANK  
SAMPLE : BL070601D  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

PREPARED : 07/06/94  
ANALYZED : 07/07/94 17:46  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	76%	2-FLUOROPHENOL	(40-140)	72%
2-FLUOROBIPHENYL	(40-140)	81%	PHENOL-D5	(40-140)	79%
TERPHENYL-D14	(40-140)	102%	2,4,6-TRIBROMOPHENOL	(40-140)	74%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL070601D  
INST. BATCH: 317921  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
SPIKE SAMPLE : LCS:19270  
SPIKE DUP SAMPLE: LCSD:19270

MATRIX : AIR  
ANALYZED : 07/07/94 16:59  
ANALYZED : 07/07/94 18:19

BNA BY GC/MS NONSTANDARD  
SPIKE/SPIKE DUPLICATE RECOVERY

Parameter	ug/puf	SPIKE AMOUNT	SPIKE CONC.	SPIKE %Rec	DUP CONC.	DUP %Rec	MAX RPD	LIMITS RPD %Rec.
PENTACHLOROPHENOL		200	140	69	160	81	15.3	39 40-140

## QA/QC SURROGATE RECOVERIES

Parameter	SPIKE %Rec	DUP %Rec	Limits
NITROBENZENE-D5	96	77	40-140
2-FLUOROPHENOL	88	72	40-140
2-FLUOROBIPHENYL	91	76	40-140
PHENOL-D5	98	94	40-140
TERPHENYL-D14	115	116	40-140
2, 4, 6-TRIBROMOPHENOL	96	102	40-140

RECOVERIES AND RPDs ARE CALCULATED USING INSTRUMENT READINGS PRIOR TO  
ROUNDING THE SPIKE AND DUPLICATE CONCENTRATIONS TO TWO SIGNIFICANT FIGURES.

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL070601  
INST. BATCH: 417773  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : METHOD BLANK  
SAMPLE : BL070601  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

PREPARED : 07/06/94  
ANALYZED : 07/07/94 15:32  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/PUF ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	88%	2-FLUOROPHENOL	(40-140)	75%
2-FLUOROBIPHENYL	(40-140)	88%	PHENOL-D5	(40-140)	77%
TERPHENYL-D14	(40-140)	79%	2,4,6-TRIBROMOPHENOL	(40-140)	87%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL070601D  
INST. BATCH: 317921  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : METHOD BLANK  
SAMPLE : BL070601D  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

PREPARED : 07/06/94  
ANALYZED : 07/07/94 16:26  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	72%	2-FLUOROPHENOL	(40-140)	74%
2-FLUOROBIPHENYL	(40-140)	90%	PHENOL-D5	(40-140)	72%
TERPHENYL-D14	(40-140)	111%	2,4,6-TRIBROMOPHENOL	(40-140)	66%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL070601  
INST. BATCH: 417773  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
SPIKE SAMPLE : LCS-19270

MATRIX : AIR  
ANALYZED : 07/07/94 16:00

BNA BY GC/MS NONSTANDARD  
SPIKE RECOVERY

Parameter	ug/PUF	AMOUNT	SPIKE LIMITS		
			CONC.	%Rec	%Rec.
PENTACHLOROPHENOL		200	84	42	40-140

## QA/QC SURROGATE RECOVERIES

Parameter	SPIKE	%Rec	Limits
NITROBENZENE-D5		96	40-140
2-FLUOROPHENOL		85	40-140
2-FLUOROBIPHENYL		99	40-140
PHENOL-D5		84	40-140
TERPHENYL-D14		93	40-140
2,4,6-TRIBROMOPHENOL		78	40-140

RECOVERIES AND RPDS ARE CALCULATED USING INSTRUMENT READINGS PRIOR TO  
ROUNDING THE SPIKE AND DUPLICATE CONCENTRATIONS TO TWO SIGNIFICANT FIGURES.

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19250.01  
SAMPLE : 0013

LOCATION:

MATRIX : AIR  
METHOD : SW 8270

**RECEIVED**

AUG 17 1994

REPORT: 19250.01  
QAQC# : BL070105D  
INST. BATCH: 317690  
REPORTED : 08/16/94

SAMPLED :  
SUBMITTED: 07/01/94  
PREPARED : 07/01/94  
ANALYZED : 07/05/94 16:07  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	63%	2-FLUOROPHENOL	(40-140)	71%
2-FLUOROBIPHENYL	(40-140)	72%	PHENOL-D5	(40-140)	82%
TERPHENYL-D14	(40-140)	94%	2,4,6-TRIBROMOPHENOL	(40-140)	84%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19250.02  
QAQC# : BL070105D  
INST. BATCH: 317690  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19250.02  
SAMPLE : 0014  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED :  
SUBMITTED: 07/01/94  
PREPARED : 07/01/94  
ANALYZED : 07/06/94 00:20  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	68%	2-FLUOROPHENOL	(40-140)	62%
2-FLUOROBIPHENYL	(40-140)	68%	PHENOL-D5	(40-140)	84%
TERPHENYL-D14	(40-140)	95%	2,4,6-TRIBROMOPHENOL	(40-140)	84%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19250.03  
QAQC# : BL070105D  
INST. BATCH: 317690  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19250.03  
SAMPLE : 0015  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED :  
SUBMITTED: 07/01/94  
PREPARED : 07/01/94  
ANALYZED : 07/05/94 17:14  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	66%	2-FLUOROPHENOL	(40-140)	69%
2-FLUOROBIPHENYL	(40-140)	70%	PHENOL-D5	(40-140)	91%
TERPHENYL-D14	(40-140)	101%	2,4,6-TRIBROMOPHENOL	(40-140)	80%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19250.04  
QAQC# : BL070105D  
INST. BATCH: 317690  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19250.04  
SAMPLE : 0016  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED :  
SUBMITTED: 07/01/94  
PREPARED : 07/01/94  
ANALYZED : 07/05/94 17:47  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	72%	2-FLUOROPHENOL	(40-140)	66%
2-FLUOROBIPHENYL	(40-140)	69%	PHENOL-D5	(40-140)	87%
TERPHENYL-D14	(40-140)	96%	2,4,6-TRIBROMOPHENOL	(40-140)	82%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19250.05  
QAQC# : BL070105D  
INST. BATCH: 317690  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19250.05  
SAMPLE : 0017  
LOCATION:

SAMPLED :  
SUBMITTED: 07/01/94  
PREPARED : 07/01/94  
ANALYZED : 07/05/94 18:19  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

MATRIX : AIR  
METHOD : SW 8270

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	78%	2-FLUOROPHENOL	(40-140)	70%
2-FLUOROBIPHENYL	(40-140)	70%	PHENOL-D5	(40-140)	90%
TERPHENYL-D14	(40-140)	109%	2,4,6-TRIBROMOPHENOL	(40-140)	75%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19250.06  
QAQC# : BL070105D  
INST. BATCH: 317690  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19250.06  
SAMPLE : 0018  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED :  
SUBMITTED: 07/01/94  
PREPARED : 07/01/94  
ANALYZED : 07/05/94 18:52  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	78%	2-FLUOROPHENOL	(40-140)	70%
2-FLUOROBIPHENYL	(40-140)	75%	PHENOL-D5	(40-140)	92%
TERPHENYL-D14	(40-140)	96%	2,4,6-TRIBROMOPHENOL	(40-140)	88%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL070105D  
INST. BATCH: 317690  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : METHOD BLANK  
SAMPLE : BL070105D  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

PREPARED : 07/01/94  
ANALYZED : 07/05/94 15:34  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	59%	2-FLUOROPHENOL	(40-140)	71%
2-FLUOROBIPHENYL	(40-140)	75%	PHENOL-D5	(40-140)	86%
TERPHENYL-D14	(40-140)	104%	2,4,6-TRIBROMOPHENOL	(40-140)	76%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL070105D  
INST. BATCH: 317690  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
SPIKE SAMPLE : LCS

MATRIX : AIR  
ANALYZED : 07/05/94 19:25

BNA BY GC/MS NONSTANDARD  
SPIKE RECOVERY

Parameter	ug/puf	AMOUNT	SPIKE LIMITS		
			CONC.	%Rec	%Rec.
PENTACHLOROPHENOL		200	99	50	40-140

## QA/QC SURROGATE RECOVERIES

Parameter	SPIKE	%Rec	Limits
NITROBENZENE-D5	76		40-140
2-FLUOROPHENOL	73		40-140
2-FLUOROBIPHENYL	83		40-140
PHENOL-D5	95		40-140
TERPHENYL-D14	97		40-140
2,4,6-TRIBROMOPHENOL	78		40-140

RECOVERIES AND RPDs ARE CALCULATED USING INSTRUMENT READINGS PRIOR TO  
ROUNDING THE SPIKE AND DUPLICATE CONCENTRATIONS TO TWO SIGNIFICANT FIGURES.

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19292.01  
QAQC# : BL070801D  
INST. BATCH: 318195  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19292.01  
SAMPLE : 0055  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/06/94 08:00  
SUBMITTED: 07/08/94  
PREPARED : 07/08/94  
ANALYZED : 07/10/94 04:02  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	77%	2-FLUOROPHENOL	(40-140)	89%
2-FLUOROBIPHENYL	(40-140)	94%	PHENOL-D5	(40-140)	87%
TERPHENYL-D14	(40-140)	122%	2,4,6-TRIBROMOPHENOL	(40-140)	123%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19292.02  
QAQC# : BL070801D  
INST. BATCH: 318245  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19292.02  
SAMPLE : 0057  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/06/94 08:00  
SUBMITTED: 07/08/94  
PREPARED : 07/08/94  
ANALYZED : 07/11/94 11:46  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	2 J

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	90%	2-FLUOROPHENOL	(40-140)	88%
2-FLUOROBIPHENYL	(40-140)	86%	PHENOL-D5	(40-140)	97%
TERPHENYL-D14	(40-140)	123%	2,4,6-TRIBROMOPHENOL	(40-140)	117%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE  
Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION  
SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19292.03  
QAQC# : BL070801D  
INST. BATCH: 318195  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19292.03  
SAMPLE : 0060  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/06/94 08:00  
SUBMITTED: 07/08/94  
PREPARED : 07/08/94  
ANALYZED : 07/10/94 05:08  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	84%	2-FLUOROPHENOL	(40-140)	93%
2-FLUOROBIPHENYL	(40-140)	95%	PHENOL-D5	(40-140)	91%
TERPHENYL-D14	(40-140)	113%	2,4,6-TRIBROMOPHENOL	(40-140)	113%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19292.04  
QAQC# : BL070801D  
INST. BATCH: 318195  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19292.04  
SAMPLE : 0059  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/06/94 08:00  
SUBMITTED: 07/08/94  
PREPARED : 07/08/94  
ANALYZED : 07/10/94 05:41  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1, 2, 3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	6 J

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	86%	2-FLUOROPHENOL	(40-140)	83%
2-FLUOROBIPHENYL	(40-140)	104%	PHENOL-D5	(40-140)	81%
TERPHENYL-D14	(40-140)	102%	2, 4, 6-TRIBROMOPHENOL	(40-140)	104%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19292.05  
QAQC# : BL070801D  
INST. BATCH: 318245  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19292.05  
SAMPLE : 0056  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/06/94 08:00  
SUBMITTED: 07/08/94  
PREPARED : 07/08/94  
ANALYZED : 07/11/94 12:17  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	90%	2-FLUOROPHENOL	(40-140)	87%
2-FLUOROBIPHENYL	(40-140)	96%	PHENOL-D5	(40-140)	80%
TERPHENYL-D14	(40-140)	102%	2,4,6-TRIBROMOPHENOL	(40-140)	97%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19292.06  
QAQC# : BL070801D  
INST. BATCH: 318195  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19292.06  
SAMPLE : 0058  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/06/94 08:00  
SUBMITTED: 07/08/94  
PREPARED : 07/08/94  
ANALYZED : 07/10/94 06:47  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	3 J

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	93%	2-FLUOROPHENOL	(40-140)	93%
2-FLUOROBIPHENYL	(40-140)	92%	PHENOL-D5	(40-140)	93%
TERPHENYL-D14	(40-140)	111%	2,4,6-TRIBROMOPHENOL	(40-140)	123%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL070801D  
INST. BATCH: 318195  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : METHOD BLANK  
SAMPLE : BL070801D  
LOCATION:  
MATRIX : AIR  
METHOD : SW 8270

PREPARED : 07/08/94  
ANALYZED : 07/10/94 02:23  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	77%	2-FLUOROPHENOL	(40-140)	92%
2-FLUOROBIPHENYL	(40-140)	88%	PHENOL-D5	(40-140)	83%
TERPHENYL-D14	(40-140)	122%	2,4,6-TRIBROMOPHENOL	(40-140)	88%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL070801D  
INST. BATCH: 318195  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
SPIKE SAMPLE : LCS:19292

MATRIX : AIR  
ANALYZED : 07/10/94 03:29

BNA BY GC/MS NONSTANDARD  
SPIKE RECOVERY

Parameter	ug/puf	SPIKE	SPIKE LIMITS	
		AMOUNT	CONC.	%Rec
PENTACHLOROPHENOL		200	150	74 40-140

## QA/QC SURROGATE RECOVERIES

Parameter	SPIKE	%Rec	Limits
NITROBENZENE-D5		82	40-140
2-FLUOROPHENOL		83	40-140
2-FLUOROBIPHENYL		85	40-140
PHENOL-D5		88	40-140
TERPHENYL-D14		117	40-140
2,4,6-TRIBROMOPHENOL		123	40-140

RECOVERIES AND RPDs ARE CALCULATED USING INSTRUMENT READINGS PRIOR TO  
ROUNDING THE SPIKE AND DUPLICATE CONCENTRATIONS TO TWO SIGNIFICANT FIGURES.

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19308.01  
QAQC# : BL071101D  
INST. BATCH: 318486  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19308.01  
SAMPLE : 0061  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/07/94 09:00  
SUBMITTED: 07/11/94  
PREPARED : 07/11/94  
ANALYZED : 07/12/94 23:53  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND		BENZO (A) PYRENE	4	ND	
CHRYSENE	4	ND		INDENO(1,2,3-CD) PYRENE	2	ND	
BENZO (B) FLUORANTHENE	8	ND		DIBENZ (A, H) ANTHRACENE	6	ND	
BENZO (K) FLUORANTHENE	8	ND		PENTACHLOROPHENOL	12	ND	

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	93%	2-FLUOROPHENOL	(40-140)	96%
2-FLUOROBIPHENYL	(40-140)	100%	PHENOL-D5	(40-140)	105%
TERPHENYL-D14	(40-140)	110%	2,4,6-TRIBROMOPHENOL	(40-140)	125%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19308.02  
QAQC# : BL071101D  
INST. BATCH: 318486  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19308.02  
SAMPLE : 0062  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/07/94 09:00  
SUBMITTED: 07/11/94  
PREPARED : 07/11/94  
ANALYZED : 07/13/94 00:24  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	83%	2-FLUOROPHENOL	(40-140)	92%
2-FLUOROBIPHENYL	(40-140)	87%	PHENOL-D5	(40-140)	91%
TERPHENYL-D14	(40-140)	97%	2,4,6-TRIBROMOPHENOL	(40-140)	122%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19308.03  
QAQC# : BL071101D  
INST. BATCH: 318486  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19308.03  
SAMPLE : 0063  
LOCATION:

SAMPLED : 07/07/94 09:00  
SUBMITTED: 07/11/94  
PREPARED : 07/11/94  
ANALYZED : 07/13/94 00:56  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	92%	2-FLUOROPHENOL	(40-140)	102%
2-FLUOROBIPHENYL	(40-140)	92%	PHENOL-D5	(40-140)	97%
TERPHENYL-D14	(40-140)	96%	2,4,6-TRIBROMOPHENOL	(40-140)	98%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19308.04  
QAQC# : BL071101D  
INST. BATCH: 318356  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19308.04  
SAMPLE : 0064  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/07/94 09:00  
SUBMITTED: 07/11/94  
PREPARED : 07/11/94  
ANALYZED : 07/12/94 15:51  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : MED

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1, 2, 3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	2 J

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	82%	2-FLUOROPHENOL	(40-140)	99%
2-FLUOROBIPHENYL	(40-140)	106%	PHENOL-D5	(40-140)	105%
TERPHENYL-D14	(40-140)	114%	2,4,6-TRIBROMOPHENOL	(40-140)	90%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19308.05  
QAQC# : BL071101D  
INST. BATCH: 318356  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19308.05  
SAMPLE : 0065  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/07/94 09:00  
SUBMITTED: 07/11/94  
PREPARED : 07/11/94  
ANALYZED : 07/12/94 16:22  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : MED

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	86%	2-FLUOROPHENOL	(40-140)	108%
2-FLUOROBIPHENYL	(40-140)	110%	PHENOL-D5	(40-140)	102%
TERPHENYL-D14	(40-140)	119%	2,4,6-TRIBROMOPHENOL	(40-140)	95%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19308.06  
QAQC# : BL071101D  
INST. BATCH: 318356  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19308.06  
SAMPLE : 0066  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/07/94 09:00  
SUBMITTED: 07/11/94  
PREPARED : 07/11/94  
ANALYZED : 07/12/94 16:53  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : MED

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	76%	2-FLUOROPHENOL	(40-140)	90%
2-FLUOROBIPHENYL	(40-140)	100%	PHENOL-D5	(40-140)	97%
TERPHENYL-D14	(40-140)	112%	2,4,6-TRIBROMOPHENOL	(40-140)	86%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL071101D  
INST. BATCH: 318486  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : METHOD BLANK  
SAMPLE : BL071101D  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

PREPARED : 07/11/94  
ANALYZED : 07/12/94 22:52  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1, 2, 3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	93%	2-FLUOROPHENOL	(40-140)	93%
2-FLUOROBIPHENYL	(40-140)	93%	PHENOL-D5	(40-140)	89%
TERPHENYL-D14	(40-140)	111%	2, 4, 6-TRIBROMOPHENOL	(40-140)	96%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL071101D  
INST. BATCH: 318486  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
SPIKE SAMPLE : LCS:19308

MATRIX : AIR  
ANALYZED : 07/12/94 23:22

BNA BY GC/MS NONSTANDARD  
SPIKE RECOVERY

Parameter	ug/puf	SPIKE AMOUNT	SPIKE LIMITS		
			CONC.	%Rec	%Rec.
PENTACHLOROPHENOL		200	110	54	40-140

## QA/QC SURROGATE RECOVERIES

Parameter	SPIKE	%Rec	Limits
NITROBENZENE-D5	96		40-140
2-FLUOROPHENOL	95		40-140
2-FLUOROBIPHENYL	94		40-140
PHENOL-D5	96		40-140
TERPHENYL-D14	95		40-140
2,4,6-TRIBROMOPHENOL	117		40-140

RECOVERIES AND RPDS ARE CALCULATED USING INSTRUMENT READINGS PRIOR TO  
ROUNDING THE SPIKE AND DUPLICATE CONCENTRATIONS TO TWO SIGNIFICANT FIGURES.

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19333.01  
QAQC# : BL071305D  
INST. BATCH: 318863  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19333.01  
SAMPLE : 0090  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/11/94 10:00  
SUBMITTED: 07/13/94  
PREPARED : 07/13/94  
ANALYZED : 07/15/94 17:46  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	98%	2-FLUOROPHENOL	(40-140)	90%
2-FLUOROBIPHENYL	(40-140)	104%	PHENOL-D5	(40-140)	101%
TERPHENYL-D14	(40-140)	129%	2,4,6-TRIBROMOPHENOL	(40-140)	118%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19333.02  
QAQC# : BL071305D  
INST. BATCH: 318863  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19333.02  
SAMPLE : 0087  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/11/94 10:00  
SUBMITTED: 07/13/94  
PREPARED : 07/13/94  
ANALYZED : 07/15/94 17:10  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	100%	2-FLUOROPHENOL	(40-140)	93%
2-FLUOROBIPHENYL	(40-140)	106%	PHENOL-D5	(40-140)	102%
TERPHENYL-D14	(40-140)	130%	2,4,6-TRIBROMOPHENOL	(40-140)	118%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19333.03  
QAQC# : BL071305D  
INST. BATCH: 318863  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19333.03  
SAMPLE : 0088  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/11/94 10:00  
SUBMITTED: 07/13/94  
PREPARED : 07/13/94  
ANALYZED : 07/15/94 16:35  
DILUTION : 2  
  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	96%	2-FLUOROPHENOL	(40-140)	90%
2-FLUOROBIPHENYL	(40-140)	103%	PHENOL-D5	(40-140)	99%
TERPHENYL-D14	(40-140)	132%	2,4,6-TRIBROMOPHENOL	(40-140)	119%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19333.04  
QAQC# : BL071305D  
INST. BATCH: 318863  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19333.04  
SAMPLE : 0085  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/11/94 10:00  
SUBMITTED: 07/13/94  
PREPARED : 07/13/94  
ANALYZED : 07/15/94 15:59  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	98%	2-FLUOROPHENOL	(40-140)	92%
2-FLUOROBIPHENYL	(40-140)	102%	PHENOL-D5	(40-140)	101%
TERPHENYL-D14	(40-140)	127%	2,4,6-TRIBROMOPHENOL	(40-140)	123%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19333.05  
SAMPLE : 0086  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

REPORT: 19333.05  
QAQC# : BL071305D  
INST. BATCH: 318863  
REPORTED : 08/16/94

SAMPLED : 07/11/94 10:00  
SUBMITTED: 07/13/94  
PREPARED : 07/13/94  
ANALYZED : 07/15/94 15:23  
DILUTION : 2  
  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	99%	2-FLUOROPHENOL	(40-140)	86%
2-FLUOROBIPHENYL	(40-140)	99%	PHENOL-D5	(40-140)	99%
TERPHENYL-D14	(40-140)	108%	2,4,6-TRIBROMOPHENOL	(40-140)	118%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19333.06  
SAMPLE : 0089  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

REPORT: 19333.06  
QAQC# : BL071305D  
INST. BATCH: 318863  
REPORTED : 08/16/94

SAMPLED : 07/11/94 10:00  
SUBMITTED: 07/13/94  
PREPARED : 07/13/94  
ANALYZED : 07/15/94 14:47  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	89%	2-FLUOROPHENOL	(40-140)	84%
2-FLUOROBIPHENYL	(40-140)	97%	PHENOL-D5	(40-140)	93%
TERPHENYL-D14	(40-140)	100%	2,4,6-TRIBROMOPHENOL	(40-140)	103%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL071305D  
INST. BATCH: 318863  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : METHOD BLANK  
SAMPLE : BL071305D  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

PREPARED : 07/13/94  
ANALYZED : 07/15/94 14:12  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	89%	2-FLUOROPHENOL	(40-140)	86%
2-FLUOROBIPHENYL	(40-140)	98%	PHENOL-D5	(40-140)	95%
TERPHENYL-D14	(40-140)	97%	2,4,6-TRIBROMOPHENOL	(40-140)	104%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL071305D  
INST. BATCH: 318863  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
SPIKE SAMPLE : LCS

MATRIX : AIR  
ANALYZED : 07/15/94 18:21

BNA BY GC/MS NONSTANDARD  
SPIKE RECOVERY

Parameter	ng/puf	SPIKE	SPIKE LIMITS		
		AMOUNT	CONC.	%Rec	%Rec.
PENTACHLOROPHENOL		200	84	42	40-140

## QA/QC SURROGATE RECOVERIES

Parameter	SPIKE	%Rec	Limits
NITROBENZENE-D5		86	40-140
2-FLUOROPHENOL		82	40-140
2-FLUOROBIPHENYL		95	40-140
PHENOL-D5		92	40-140
TERPHENYL-D14		134	40-140
2,4,6-TRIBROMOPHENOL		112	40-140

RECOVERIES AND RPDs ARE CALCULATED USING INSTRUMENT READINGS PRIOR TO  
ROUNDING THE SPIKE AND DUPLICATE CONCENTRATIONS TO TWO SIGNIFICANT FIGURES.

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19213.01  
QAQC# : BL062901D  
INST. BATCH: 317424  
REPORTED : 08/15/94

PROJECT : ARKWOOD  
LAB# : 19213.01  
SAMPLE : 0001  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 06/27/94 18:00  
SUBMITTED: 06/29/94  
PREPARED : 06/29/94  
ANALYZED : 07/01/94 09:57  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	87%	2-FLUOROPHENOL	(40-140)	78%
2-FLUOROBIPHENYL	(40-140)	90%	PHENOL-D5	(40-140)	90%
TERPHENYL-D14	(40-140)	98%	2,4,6-TRIBROMOPHENOL	(40-140)	104%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19213.02  
QAQC# : BL062901D  
INST. BATCH: 317299  
REPORTED : 08/15/94

PROJECT : ARKWOOD  
LAB# : 19213.02  
SAMPLE : 0002  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 06/27/94 18:00  
SUBMITTED: 06/29/94  
PREPARED : 06/29/94  
ANALYZED : 06/30/94 14:36  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	65%	2-FLUOROPHENOL	(40-140)	72%
2-FLUOROBIPHENYL	(40-140)	84%	PHENOL-D5	(40-140)	76%
TERPHENYL-D14	(40-140)	99%	2,4,6-TRIBROMOPHENOL	(40-140)	79%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19213.03  
QAQC# : BL062901D  
INST. BATCH: 317299  
REPORTED : 08/15/94

PROJECT : ARKWOOD  
LAB# : 19213.03  
SAMPLE : 0003  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 06/27/94 18:00  
SUBMITTED: 06/29/94  
PREPARED : 06/29/94  
ANALYZED : 06/30/94 15:49  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	75%	2-FLUOROPHENOL	(40-140)	79%
2-FLUOROBIPHENYL	(40-140)	92%	PHENOL-D5	(40-140)	86%
TERPHENYL-D14	(40-140)	104%	2,4,6-TRIBROMOPHENOL	(40-140)	84%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE  
  
Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19213.04  
QAQC# : BL062901D  
INST. BATCH: 317424  
REPORTED : 08/15/94

PROJECT : ARKWOOD  
LAB# : 19213.04  
SAMPLE : 0004  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 06/27/94 18:00  
SUBMITTED: 06/29/94  
PREPARED : 06/29/94  
ANALYZED : 07/01/94 10:30  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	2 J

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	77%	2-FLUOROPHENOL	(40-140)	76%
2-FLUOROBIPHENYL	(40-140)	91%	PHENOL-D5	(40-140)	87%
TERPHENYL-D14	(40-140)	105%	2,4,6-TRIBROMOPHENOL	(40-140)	98%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19213.05  
QAQC# : BL062901D  
INST. BATCH: 317424  
REPORTED : 08/15/94

PROJECT : ARKWOOD  
LAB# : 19213.05  
SAMPLE : 0005  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 06/27/94 18:00  
SUBMITTED: 06/29/94  
PREPARED : 06/29/94  
ANALYZED : 07/01/94 11:03  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf      ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	75%	2-FLUOROPHENOL	(40-140)	69%
2-FLUOROBIPHENYL	(40-140)	84%	PHENOL-D5	(40-140)	83%
TERPHENYL-D14	(40-140)	104%	2,4,6-TRIBROMOPHENOL	(40-140)	88%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19213.06  
QAQC# : BL062901D  
INST. BATCH: 317424  
REPORTED : 08/15/94

PROJECT : ARKWOOD  
LAB# : 19213.06  
SAMPLE : 0006  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 06/27/94 18:00  
SUBMITTED: 06/29/94  
PREPARED : 06/29/94  
ANALYZED : 07/01/94 11:36  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	82%	2-FLUOROPHENOL	(40-140)	75%
2-FLUOROBIPHENYL	(40-140)	93%	PHENOL-D5	(40-140)	85%
TERPHENYL-D14	(40-140)	105%	2,4,6-TRIBROMOPHENOL	(40-140)	88%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL062901D  
INST. BATCH: 317299  
REPORTED : 08/15/94

PROJECT : ARKWOOD  
LAB# :  
SAMPLE : BL062901  
LOCATION:  
MATRIX : AIR  
METHOD : SW 8270

PREPARED : 06/29/94  
ANALYZED : 06/30/94 12:55  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf      ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	84%	2-FLUOROPHENOL	(40-140)	83%
2-FLUOROBIPHENYL	(40-140)	90%	PHENOL-D5	(40-140)	93%
TERPHENYL-D14	(40-140)	102%	2,4,6-TRIBROMOPHENOL	(40-140)	87%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

D = SURROGATES DILUTED OUT

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

EPA = #EPA600/4-79-020, MARCH 1985

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL062901D  
INST. BATCH: 317299  
REPORTED : 08/15/94

PROJECT : ARKWOOD  
SPIKE SAMPLE : LCS

MATRIX : AIR  
ANALYZED : 06/30/94 13:29

BNA BY GC/MS NONSTANDARD  
SPIKE RECOVERY

Parameter	ug/puf	SPIKE AMOUNT	SPIKE LIMITS		
			CONC.	%Rec	%Rec.
PENTACHLOROPHENOL		200	130	64	40-140

## QA/QC SURROGATE RECOVERIES

Parameter	SPIKE	%Rec	Limits
NITROBENZENE-D5		74	40-140
2-FLUOROPHENOL		80	40-140
2-FLUOROBIPHENYL		86	40-140
PHENOL-D5		86	40-140
TERPHENYL-D14		96	40-140
2,4,6-TRIBROMOPHENOL		75	40-140

RECOVERIES AND RPDS ARE CALCULATED USING INSTRUMENT READINGS PRIOR TO  
ROUNDING THE SPIKE AND DUPLICATE CONCENTRATIONS TO TWO SIGNIFICANT FIGURES.

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.01  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.01  
SAMPLE : 0067  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/08/94 08:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/13/94 18:22  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.			QUANT.		
	<u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>LIMIT</u>	<u>RESULTS</u>	
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND	
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND	
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND	
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND	

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	98%	2-FLUOROPHENOL	(40-140)	96%
2-FLUOROBIPHENYL	(40-140)	101%	PHENOL-D5	(40-140)	102%
TERPHENYL-D14	(40-140)	113%	2,4,6-TRIBROMOPHENOL	(40-140)	115%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.02  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.02  
SAMPLE : 0068  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/08/94 08:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/13/94 18:58  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	4 J

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	101%	2-FLUOROPHENOL	(40-140)	99%
2-FLUOROBIPHENYL	(40-140)	102%	PHENOL-D5	(40-140)	105%
TERPHENYL-D14	(40-140)	124%	2,4,6-TRIBROMOPHENOL	(40-140)	109%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.03  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.03  
SAMPLE : 0069  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/08/94 08:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/13/94 19:34  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	2

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140) 100%	2-FLUOROPHENOL	(40-140) 99%
2-FLUOROBIPHENYL	(40-140) 101%	PHENOL-D5	(40-140) 104%
TERPHENYL-D14	(40-140) 115%	2,4,6-TRIBROMOPHENOL	(40-140) 114%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.04  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.04  
SAMPLE : 0070  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/08/94 08:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/13/94 20:10  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	97%	2-FLUOROPHENOL	(40-140)	94%
2-FLUOROBIPHENYL	(40-140)	100%	PHENOL-D5	(40-140)	100%
TERPHENYL-D14	(40-140)	115%	2,4,6-TRIBROMOPHENOL	(40-140)	107%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19319.05  
SAMPLE : 0072  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

REPORT: 19319.05  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94  
  
SAMPLED : 07/08/94 08:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/13/94 20:46  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	97%	2-FLUOROPHENOL	(40-140)	94%
2-FLUOROBIPHENYL	(40-140)	100%	PHENOL-D5	(40-140)	104%
TERPHENYL-D14	(40-140)	117%	2,4,6-TRIBROMOPHENOL	(40-140)	104%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.06  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.06  
SAMPLE : 0073  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/08/94 08:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/13/94 21:22  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	97%	2-FLUOROPHENOL	(40-140)	94%
2-FLUOROBIPHENYL	(40-140)	102%	PHENOL-D5	(40-140)	98%
TERPHENYL-D14	(40-140)	117%	2,4,6-TRIBROMOPHENOL	(40-140)	97%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.07  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.07  
SAMPLE : 0074  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/09/94 10:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/13/94 21:58  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	96%	2-FLUOROPHENOL	(40-140)	93%
2-FLUOROBIPHENYL	(40-140)	99%	PHENOL-D5	(40-140)	100%
TERPHENYL-D14	(40-140)	117%	2,4,6-TRIBROMOPHENOL	(40-140)	100%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19319.08  
SAMPLE : 0075  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

REPORT: 19319.08  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

SAMPLED : 07/09/94 10:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/13/94 22:34  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	83%	2-FLUOROPHENOL	(40-140)	84%
2-FLUOROBIPHENYL	(40-140)	88%	PHENOL-D5	(40-140)	86%
TERPHENYL-D14	(40-140)	106%	2,4,6-TRIBROMOPHENOL	(40-140)	85%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.09  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.09  
SAMPLE : 0076  
LOCATION:  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/09/94 10:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/13/94 23:09  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	99%	2-FLUOROPHENOL	(40-140)	78%
2-FLUOROBIPHENYL	(40-140)	100%	PHENOL-D5	(40-140)	110%
TERPHENYL-D14	(40-140)	121%	2,4,6-TRIBROMOPHENOL	(40-140)	94%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.10  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.10  
SAMPLE : 0077  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/09/94 10:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/13/94 23:45  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	99%	2-FLUOROPHENOL	(40-140)	100%
2-FLUOROBIPHENYL	(40-140)	106%	PHENOL-D5	(40-140)	105%
TERPHENYL-D14	(40-140)	133%	2,4,6-TRIBROMOPHENOL	(40-140)	102%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.11  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.11  
SAMPLE : 0078  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/09/94 10:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/14/94 00:20  
DILUTION : 2  
  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	95%	2-FLUOROPHENOL	(40-140)	98%
2-FLUOROBIPHENYL	(40-140)	98%	PHENOL-D5	(40-140)	103%
TERPHENYL-D14	(40-140)	118%	2,4,6-TRIBROMOPHENOL	(40-140)	97%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.12  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.12  
SAMPLE : 0071  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/08/94 08:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/14/94 00:55  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	102%	2-FLUOROPHENOL	(40-140)	100%
2-FLUOROBIPHENYL	(40-140)	106%	PHENOL-D5	(40-140)	104%
TERPHENYL-D14	(40-140)	135%	2,4,6-TRIBROMOPHENOL	(40-140)	100%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCRNTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.13  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.13  
SAMPLE : 0084  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/10/94 00:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/14/94 01:31  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	98%	2-FLUOROPHENOL	(40-140)	98%
2-FLUOROBIPHENYL	(40-140)	103%	PHENOL-D5	(40-140)	103%
TERPHENYL-D14	(40-140)	124%	2,4,6-TRIBROMOPHENOL	(40-140)	95%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.14  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.14  
SAMPLE : 0081  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/10/94 00:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/14/94 02:07  
DILUTION : 2  
  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	98%	2-FLUOROPHENOL	(40-140)	97%
2-FLUOROBIPHENYL	(40-140)	103%	PHENOL-D5	(40-140)	102%
TERPHENYL-D14	(40-140)	131%	2,4,6-TRIBROMOPHENOL	(40-140)	104%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE  
Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION  
SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.15  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.15  
SAMPLE : 0080  
LOCATION:  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/10/94 00:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/14/94 02:42  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND		BENZO(A) PYRENE	4	ND	
CHRYSENE	4	ND		INDENO(1,2,3-CD) PYRENE	2	ND	
BENZO(B) FLUORANTHENE	8	ND		DIBENZ(A,H) ANTHRACENE	6	ND	
BENZO(K) FLUORANTHENE	8	ND		PENTACHLOROPHENOL	12	ND	

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	96%	2-FLUOROPHENOL	(40-140)	95%
2-FLUOROBIPHENYL	(40-140)	100%	PHENOL-D5	(40-140)	100%
TERPHENYL-D14	(40-140)	135%	2,4,6-TRIBROMOPHENOL	(40-140)	98%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

D = SURROGATES DILUTED OUT

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

EPA = #EPA600/4-79-020, MARCH 1985

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.16  
QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.16  
SAMPLE : 0079  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/10/94 00:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/14/94 03:18  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	96%	2-FLUOROPHENOL	(40-140)	94%
2-FLUOROBIPHENYL	(40-140)	100%	PHENOL-D5	(40-140)	101%
TERPHENYL-D14	(40-140)	140%	2,4,6-TRIBROMOPHENOL	(40-140)	103%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.17  
QAQC# : BL071203D  
INST. BATCH: 318725  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.17  
SAMPLE : 0082  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/10/94 00:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/14/94 10:26  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	95%	2-FLUOROPHENOL	(40-140)	89%
2-FLUOROBIPHENYL	(40-140)	101%	PHENOL-D5	(40-140)	100%
TERPHENYL-D14	(40-140)	111%	2,4,6-TRIBROMOPHENOL	(40-140)	101%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19319.18  
QAQC# : BL071203D  
INST. BATCH: 318725  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19319.18  
SAMPLE : 0083  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/10/94 00:00  
SUBMITTED: 07/12/94  
PREPARED : 07/12/94  
ANALYZED : 07/14/94 11:01  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/OC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	85%	2-FLUOROPHENOL	(40-140)	79%
2-FLUOROBIPHENYL	(40-140)	91%	PHENOL-D5	(40-140)	87%
TERPHENYL-D14	(40-140)	105%	2,4,6-TRIBROMOPHENOL	(40-140)	97%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE  
Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION  
SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : METHOD BLANK  
SAMPLE : BL071203D  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

PREPARED : 07/12/94  
ANALYZED : 07/13/94 17:09  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	101%	2-FLUOROPHENOL	(40-140)	98%
2-FLUOROBIPHENYL	(40-140)	102%	PHENOL-D5	(40-140)	101%
TERPHENYL-D14	(40-140)	107%	2,4,6-TRIBROMOPHENOL	(40-140)	101%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
SPIKE SAMPLE : LCS

MATRIX : AIR  
ANALYZED : 07/13/94 17:46

BNA BY GC/MS NONSTANDARD  
SPIKE RECOVERY

Parameter	ng/puf	SPIKE AMOUNT	SPIKE LIMITS		
			CONC.	%Rec	%Rec.
PENTACHLOROPHENOL		200	140	70	40-140

## QA/QC SURROGATE RECOVERIES

Parameter	SPIKE	%Rec	Limits
NITROBENZENE-D5	104		40-140
2-FLUOROPHENOL	99		40-140
2-FLUOROBIPHENYL	106		40-140
PHENOL-D5	105		40-140
TERPHENYL-D14	109		40-140
2,4,6-TRIBROMOPHENOL	108		40-140

RECOVERIES AND RPDs ARE CALCULATED USING INSTRUMENT READINGS PRIOR TO  
ROUNDING THE SPIKE AND DUPLICATE CONCENTRATIONS TO TWO SIGNIFICANT FIGURES.

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : METHOD BLANK  
SAMPLE : BL071203D  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

PREPARED : 07/12/94  
ANALYZED : 07/13/94 17:09  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ng/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	QUANT. <u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1, 2, 3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	101%	2-FLUOROPHENOL	(40-140)	98%
2-FLUOROBIPHENYL	(40-140)	102%	PHENOL-D5	(40-140)	101%
TERPHENYL-D14	(40-140)	107%	2, 4, 6-TRIBROMOPHENOL	(40-140)	101%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL071203D  
INST. BATCH: 318650  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
SPIKE SAMPLE : LCS

MATRIX : AIR  
ANALYZED : 07/13/94 17:46

BNA BY GC/MS NONSTANDARD  
SPIKE RECOVERY

Parameter	ng/puf	SPIKE	SPIKE LIMITS		
		AMOUNT	CONC.	%Rec	%Rec.
PENTACHLOROPHENOL		200	140	70	40-140

## QA/QC SURROGATE RECOVERIES

Parameter	SPIKE	%Rec	Limits
NITROBENZENE-D5		104	40-140
2-FLUOROPHENOL		99	40-140
2-FLUOROBIPHENYL		106	40-140
PHENOL-D5		105	40-140
TERPHENYL-D14		109	40-140
2,4,6-TRIBROMOPHENOL		108	40-140

RECOVERIES AND RPDs ARE CALCULATED USING INSTRUMENT READINGS PRIOR TO  
ROUNDING THE SPIKE AND DUPLICATE CONCENTRATIONS TO TWO SIGNIFICANT FIGURES.

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19279.01  
QAQC# : BL070701D  
INST. BATCH: 318131  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19279.01  
SAMPLE : 0049  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/05/94 11:00  
SUBMITTED: 07/07/94  
PREPARED : 07/07/94  
ANALYZED : 07/09/94 00:00  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	71%	2-FLUOROPHENOL	(40-140)	71%
2-FLUOROBIPHENYL	(40-140)	73%	PHENOL-D5	(40-140)	74%
TERPHENYL-D14	(40-140)	86%	2,4,6-TRIBROMOPHENOL	(40-140)	65%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19279.02  
QAQC# : BL070701D  
INST. BATCH: 318027  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19279.02  
SAMPLE : 0050  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/05/94 11:00  
SUBMITTED: 07/07/94  
PREPARED : 07/07/94  
ANALYZED : 07/08/94 19:00  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	70%	2-FLUOROPHENOL	(40-140)	70%
2-FLUOROBIPHENYL	(40-140)	79%	PHENOL-D5	(40-140)	73%
TERPHENYL-D14	(40-140)	102%	2,4,6-TRIBROMOPHENOL	(40-140)	70%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19279.03  
QAQC# : BL070701D  
INST. BATCH: 318027  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19279.03  
SAMPLE : 0051  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/05/94 11:00  
SUBMITTED: 07/07/94  
PREPARED : 07/07/94  
ANALYZED : 07/08/94 19:33  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	60%	2-FLUOROPHENOL	(40-140)	64%
2-FLUOROBIPHENYL	(40-140)	67%	PHENOL-D5	(40-140)	70%
TERPHENYL-D14	(40-140)	87%	2,4,6-TRIBROMOPHENOL	(40-140)	80%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19279.04  
QAQC# : BL070701D  
INST. BATCH: 318195  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19279.04  
SAMPLE : 0052  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/05/94 11:00  
SUBMITTED: 07/07/94  
PREPARED : 07/07/94  
ANALYZED : 07/10/94 01:18  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	71%	2-FLUOROPHENOL	(40-140)	85%
2-FLUOROBIPHENYL	(40-140)	69%	PHENOL-D5	(40-140)	88%
TERPHENYL-D14	(40-140)	106%	2,4,6-TRIBROMOPHENOL	(40-140)	84%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19279.05  
QAQC# : BL070701D  
INST. BATCH: 318131  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19279.05  
SAMPLE : 0053  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/05/94 11:00  
SUBMITTED: 07/07/94  
PREPARED : 07/07/94  
ANALYZED : 07/09/94 01:04  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	76%	2-FLUOROPHENOL	(40-140)	82%
2-FLUOROBIPHENYL	(40-140)	73%	PHENOL-D5	(40-140)	81%
TERPHENYL-D14	(40-140)	87%	2,4,6-TRIBROMOPHENOL	(40-140)	76%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19279.06  
QAQC# : BL070701D  
INST. BATCH: 318027  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19279.06  
SAMPLE : 0054  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 07/05/94 11:00  
SUBMITTED: 07/07/94  
PREPARED : 07/07/94  
ANALYZED : 07/08/94 21:12  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	86%	2-FLUOROPHENOL	(40-140)	88%
2-FLUOROBIPHENYL	(40-140)	93%	PHENOL-D5	(40-140)	84%
TERPHENYL-D14	(40-140)	120%	2,4,6-TRIBROMOPHENOL	(40-140)	69%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL070701D  
INST. BATCH: 318027  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : METHOD BLANK  
SAMPLE : BL070701D  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

PREPARED : 07/07/94  
ANALYZED : 07/08/94 17:21  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT. <u>LIMIT</u> <u>RESULTS</u>		<u>PARAMETER</u>	QUANT. <u>LIMIT</u> <u>RESULTS</u>	
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	70%	2-FLUOROPHENOL	(40-140)	79%
2-FLUOROBIPHENYL	(40-140)	87%	PHENOL-D5	(40-140)	76%
TERPHENYL-D14	(40-140)	99%	2,4,6-TRIBROMOPHENOL	(40-140)	76%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE  
Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION  
SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL070701D  
INST. BATCH: 318027  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
SPIKE SAMPLE : LCS:19279

MATRIX : AIR  
ANALYZED : 07/08/94 17:54

BNA BY GC/MS NONSTANDARD  
SPIKE RECOVERY

Parameter	ug/puf	AMOUNT	SPIKE LIMITS		
			CONC.	%Rec	%Rec.
PENTACHLOROPHENOL		200	96	48	40-140

## QA/QC SURROGATE RECOVERIES

Parameter	SPIKE	%Rec	Limits
NITROBENZENE-D5	70		40-140
2-FLUOROPHENOL	77		40-140
2-FLUOROBIPHENYL	74		40-140
PHENOL-D5	79		40-140
TERPHENYL-D14	96		40-140
2,4,6-TRIBROMOPHENOL	79		40-140

RECOVERIES AND RPDs ARE CALCULATED USING INSTRUMENT READINGS PRIOR TO  
ROUNDING THE SPIKE AND DUPLICATE CONCENTRATIONS TO TWO SIGNIFICANT FIGURES.

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19261.01  
SAMPLE : 0019

LOCATION:

MATRIX : AIR  
METHOD : SW 8270

**RECEIVED**  
AUG 17 1994

REPORT: 19261.01  
QAQC# : BL070201D  
INST. BATCH: 317690  
REPORTED : 08/16/94

SAMPLED : 06/30/94 09:00  
SUBMITTED: 07/02/94  
PREPARED : 07/02/94  
ANALYZED : 07/05/94 20:30  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	86%	2-FLUOROPHENOL	(40-140)	75%
2-FLUOROBIPHENYL	(40-140)	84%	PHENOL-D5	(40-140)	92%
TERPHENYL-D14	(40-140)	102%	2,4,6-TRIBROMOPHENOL	(40-140)	89%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

PROJECT : ARKWOOD  
LAB# : 19261.02  
SAMPLE : 0020  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

REPORT: 19261.02  
QAQC# : BL070201D  
INST. BATCH: 317690  
REPORTED : 08/16/94

SAMPLED : 06/30/94 09:00  
SUBMITTED: 07/02/94  
PREPARED : 07/02/94  
ANALYZED : 07/05/94 21:03  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	80%	2-FLUOROPHENOL	(40-140)	74%
2-FLUOROBIPHENYL	(40-140)	84%	PHENOL-D5	(40-140)	94%
TERPHENYL-D14	(40-140)	102%	2,4,6-TRIBROMOPHENOL	(40-140)	88%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19261.03  
QAQC# : BL070201D  
INST. BATCH: 317690  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19261.03  
SAMPLE : 0021  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 06/30/94 09:00  
SUBMITTED: 07/02/94  
PREPARED : 07/02/94  
ANALYZED : 07/06/94 00:52  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	85%	2-FLUOROPHENOL	(40-140)	72%
2-FLUOROBIPHENYL	(40-140)	83%	PHENOL-D5	(40-140)	92%
TERPHENYL-D14	(40-140)	96%	2,4,6-TRIBROMOPHENOL	(40-140)	91%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19261.04  
QAQC# : BL070201D  
INST. BATCH: 317690  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19261.04  
SAMPLE : 0022  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 06/30/94 09:00  
SUBMITTED: 07/02/94  
PREPARED : 07/02/94  
ANALYZED : 07/05/94 22:08  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1, 2, 3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	73%	2-FLUOROPHENOL	(40-140)	72%
2-FLUOROBIPHENYL	(40-140)	88%	PHENOL-D5	(40-140)	84%
TERPHENYL-D14	(40-140)	99%	2, 4, 6-TRIBROMOPHENOL	(40-140)	68%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19261.05  
QAQC# : BL070201D  
INST. BATCH: 317690  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19261.05  
SAMPLE : 0023  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 06/30/94 09:00  
SUBMITTED: 07/02/94  
PREPARED : 07/02/94  
ANALYZED : 07/05/94 22:41  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

PARAMETER	QUANT.		PARAMETER	QUANT.	
	LIMIT	RESULTS		LIMIT	RESULTS
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	80%	2-FLUOROPHENOL	(40-140)	79%
2-FLUOROBIPHENYL	(40-140)	89%	PHENOL-D5	(40-140)	93%
TERPHENYL-D14	(40-140)	107%	2,4,6-TRIBROMOPHENOL	(40-140)	89%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19261.06  
QAQC# : BL070201D  
INST. BATCH: 317690  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19261.06  
SAMPLE : 0024  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 06/30/94 09:00  
SUBMITTED: 07/02/94  
PREPARED : 07/02/94  
ANALYZED : 07/05/94 23:14  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO (1, 2, 3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	84%	2-FLUOROPHENOL	(40-140)	79%
2-FLUOROBIPHENYL	(40-140)	84%	PHENOL-D5	(40-140)	92%
TERPHENYL-D14	(40-140)	94%	2, 4, 6-TRIBROMOPHENOL	(40-140)	79%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL070201D  
INST. BATCH: 317690  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : METHOD BLANK  
SAMPLE : BL070201D  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

PREPARED : 07/02/94  
ANALYZED : 07/05/94 19:58  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT. LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	84%	2-FLUOROPHENOL	(40-140)	79%
2-FLUOROBIPHENYL	(40-140)	86%	PHENOL-D5	(40-140)	90%
TERPHENYL-D14	(40-140)	104%	2,4,6-TRIBROMOPHENOL	(40-140)	73%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL070201D  
INST. BATCH: 317690  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
SPIKE SAMPLE : LCS

MATRIX : AIR  
ANALYZED : 07/05/94 23:47

BNA BY GC/MS NONSTANDARD  
SPIKE RECOVERY

Parameter	ug/puf	SPIKE AMOUNT	SPIKE LIMITS		
			CONC.	%Rec	%Rec.
PENTACHLOROPHENOL		200	130	64	40-140

## QA/QC SURROGATE RECOVERIES

Parameter	SPIKE	%Rec	Limits
NITROBENZENE-D5		89	40-140
2-FLUOROPHENOL		86	40-140
2-FLUOROBIPHENYL		92	40-140
PHENOL-D5		100	40-140
TERPHENYL-D14		106	40-140
2,4,6-TRIBROMOPHENOL		90	40-140

RECOVERIES AND RPDs ARE CALCULATED USING INSTRUMENT READINGS PRIOR TO  
ROUNDING THE SPIKE AND DUPLICATE CONCENTRATIONS TO TWO SIGNIFICANT FIGURES.

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19231.01  
QAQC# : BL063001D  
INST. BATCH: 317424  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19231.01  
SAMPLE : 0007  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 06/28/94 09:00  
SUBMITTED: 06/30/94  
PREPARED : 06/30/94  
ANALYZED : 07/01/94 13:17  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	77%	2-FLUOROPHENOL	(40-140)	66%
2-FLUOROBIPHENYL	(40-140)	85%	PHENOL-D5	(40-140)	86%
TERPHENYL-D14	(40-140)	102%	2,4,6-TRIBROMOPHENOL	(40-140)	102%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE  
Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION  
SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19231.02  
QAQC# : BL063001D  
INST. BATCH: 317424  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19231.02  
SAMPLE : 0008  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 06/28/94 09:00  
SUBMITTED: 06/30/94  
PREPARED : 06/30/94  
ANALYZED : 07/01/94 13:51  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND	BENZO(A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO(B) FLUORANTHENE	8	ND	DIBENZ(A,H) ANTHRACENE	6	ND
BENZO(K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	3 J

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	81%	2-FLUOROPHENOL	(40-140)	66%
2-FLUOROBIPHENYL	(40-140)	87%	PHENOL-D5	(40-140)	84%
TERPHENYL-D14	(40-140)	109%	2,4,6-TRIBROMOPHENOL	(40-140)	110%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE  
Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION  
SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19231.03  
QAQC# : BL063001D  
INST. BATCH: 317424  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19231.03  
SAMPLE : 0009  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 06/28/94 09:00  
SUBMITTED: 06/30/94  
PREPARED : 06/30/94  
ANALYZED : 07/01/94 14:24  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>	<u>PARAMETER</u>	<u>QUANT.</u>	<u>LIMIT</u>	<u>RESULTS</u>
BENZO(A) ANTHRACENE	4	ND		BENZO(A) PYRENE	4	ND	
CHRYSENE	4	ND		INDENO(1,2,3-CD) PYRENE	2	ND	
BENZO(B) FLUORANTHENE	8	ND		DIBENZ(A,H) ANTHRACENE	6	ND	
BENZO(K) FLUORANTHENE	8	ND		PENTACHLOROPHENOL	12	ND	

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	80%	2-FLUOROPHENOL	(40-140)	67%
2-FLUOROBIPHENYL	(40-140)	88%	PHENOL-D5	(40-140)	85%
TERPHENYL-D14	(40-140)	111%	2,4,6-TRIBROMOPHENOL	(40-140)	99%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19231.04  
QAQC# : BL063001D  
INST. BATCH: 317424  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19231.04  
SAMPLE : 0010  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 06/28/94 09:00  
SUBMITTED: 06/30/94  
PREPARED : 06/30/94  
ANALYZED : 07/01/94 14:59  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A, H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	70%	2-FLUOROPHENOL	(40-140)	66%
2-FLUOROBIPHENYL	(40-140)	84%	PHENOL-D5	(40-140)	81%
TERPHENYL-D14	(40-140)	99%	2,4,6-TRIBROMOPHENOL	(40-140)	92%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #BPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

REPORT: 19231.05  
QAQC# : BL063001D  
INST. BATCH: 317424  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : 19231.05  
SAMPLE : 0012  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

SAMPLED : 06/28/94 09:00  
SUBMITTED: 06/30/94  
PREPARED : 06/30/94  
ANALYZED : 07/01/94 15:34  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	<u>QUANT.</u>		<u>PARAMETER</u>	<u>QUANT.</u>	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENENE	8	ND	PENTACHLOROPHENOL	12	ND

### QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	68%	2-FLUOROPHENOL	(40-140)	60%
2-FLUOROBIPHENYL	(40-140)	85%	PHENOL-D5	(40-140)	74%
TERPHENYL-D14	(40-140)	101%	2,4,6-TRIBROMOPHENOL	(40-140)	84%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT

B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE

I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE

NA = NOT APPLICABLE

Methodology: SM = STANDARD METHODS, 16th EDITION, 1985

EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS

D = SURROGATES DILUTED OUT

J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION

SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL063001D  
INST. BATCH: 317424  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
LAB# : METHOD BLANK  
SAMPLE : BL063001D  
LOCATION:  
  
MATRIX : AIR  
METHOD : SW 8270

PREPARED : 06/30/94  
ANALYZED : 07/01/94 12:10  
DILUTION : 2  
%MOISTURE: 0.00  
LEVEL : LOW

BNA BY GC/MS NONSTANDARD  
RESULTS REPORTED IN ug/puf ON A DRY WEIGHT BASIS

<u>PARAMETER</u>	QUANT.		<u>PARAMETER</u>	QUANT.	
	<u>LIMIT</u>	<u>RESULTS</u>		<u>LIMIT</u>	<u>RESULTS</u>
BENZO (A) ANTHRACENE	4	ND	BENZO (A) PYRENE	4	ND
CHRYSENE	4	ND	INDENO(1,2,3-CD) PYRENE	2	ND
BENZO (B) FLUORANTHENE	8	ND	DIBENZ (A,H) ANTHRACENE	6	ND
BENZO (K) FLUORANTHENE	8	ND	PENTACHLOROPHENOL	12	ND

## QA/QC SURROGATE RECOVERIES

NITROBENZENE-D5	(40-140)	74%	2-FLUOROPHENOL	(40-140)	70%
2-FLUOROBIPHENYL	(40-140)	88%	PHENOL-D5	(40-140)	82%
TERPHENYL-D14	(40-140)	96%	2,4,6-TRIBROMOPHENOL	(40-140)	89%

ND = NOT DETECTED ABOVE QUANTITATION LIMIT  
B = ANALYTE DETECTED IN BLANK AS WELL AS SAMPLE  
I = UNABLE TO QUANTITATE DUE TO MATRIX INTERFERENCE  
NA = NOT APPLICABLE  
Methodology: SM = STANDARD METHODS, 16th EDITION, 1985  
EPA = #EPA600/4-79-020, MARCH 1985

\* = SURROGATE RECOVERY OUTSIDE OF QC LIMITS  
D = SURROGATES DILUTED OUT  
J = ESTIMATED VALUE: CONCENTRATION BELOW LIMIT OF QUANTITATION  
SW = EPA METHODOLOGY, "#SW846", THIRD EDITION, NOVEMBER 1986

# SOUTHWEST LABORATORY OF OKLAHOMA, INC.

1700 W. ALBANY SUITE C BROKEN ARROW, OK 74012-1421 (918) 251-2858

FORRESTER GROUP  
205 PARK CENTRAL EAST  
SUITE 313  
SPRINGFIELD, MO 65806

QAQC# : BL063001D  
INST. BATCH: 317424  
REPORTED : 08/16/94

PROJECT : ARKWOOD  
SPIKE SAMPLE : LCS

MATRIX : AIR  
ANALYZED : 07/01/94 12:43

BNA BY GC/MS NONSTANDARD  
SPIKE RECOVERY

Parameter	ug/puf	SPIKE	SPIKE LIMITS		
		AMOUNT	CONC.	%Rec	%Rec.
PENTACHLOROPHENOL		200	170	84	40-140

## QA/QC SURROGATE RECOVERIES

Parameter	SPIKE	%Rec	Limits
NITROBENZENE-D5		81	40-140
2-FLUOROPHENOL		71	40-140
2-FLUOROBIPHENYL		87	40-140
PHENOL-D5		88	40-140
TERPHENYL-D14		104	40-140
2,4,6-TRIBROMOPHENOL		103	40-140

RECOVERIES AND RPDs ARE CALCULATED USING INSTRUMENT READINGS PRIOR TO  
ROUNDING THE SPIKE AND DUPLICATE CONCENTRATIONS TO TWO SIGNIFICANT FIGURES.

DEPARTMENT

AUG 08 1994



## CERTIFICATE OF ANALYSIS

August 5, 1994

The Forrester Group  
205 Central Park East, Suite 313  
Springfield, MO 65606

Attention: Mr. Kevin Cassil

This is the Certificate of Analysis for the following:

Client Project Name/No: Arkwood/10150205  
ITAS Project Number: 546.01  
ITAS Login Number: 5661  
Date Received by Lab: July 27, 1994  
Sample No./Type: Four (4) Soil

### I. Introduction

The above samples were received at the ITAS - St. Louis Laboratory for analytical testing. Included is the data summary report for Dioxin by EPA 8280.

The samples were labeled as follows:

<u>Laboratory #</u>	<u>CLIENT SAMPLE IDENTITY</u>
5661-001	2554
5661-002	2555
5661-003	2556
5661-004	2557

### II. Analytical Results/Methodology

The analytical results for this report are presented by analytical test. The data sets include sample identification information, the analytical results, and the appropriate detection limits.

The Forrester Group  
August 5, 1994  
Project Number: 546.01  
Login Number: 5661

INTERNATIONAL TECHNOLOGY CORPORATION

Page 2

### III. Quality Control

Matrix QC (MS) was not required per client request.

The laboratory control QA/QC information can be found immediately following the analytical data. Control QA/QC data is used to assess the laboratory's performance.

### IV. Comments/Nonconformances

Due to an error in a file used for calculation of the dioxin results, the results were reported incorrectly.

#### Definitions and Qualifiers

B = The associated analyte was seen in the laboratory method blank.

J = The associated value is estimated.

NA = Not Applicable

ND = Analyte was analyzed for and was not detected.

QCBLK = Laboratory method blank.

QCLCS = Laboratory control sample.

SURR = Surrogate compound(s)

%RE = Percent recovery.

Reviewed and Approved:

  
\_\_\_\_\_  
John D. Powell  
ITAS Project Manager

Date:

08-05-94



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

10261575  
AUG 09 1994  
Environmental

## CERTIFICATE OF ANALYSIS

August 5, 1994

The Forrester Group  
205 Central Park East, Suite 313  
Springfield, MO 65606

Attention: Mr. Kevin Cassil

This is the Certificate of Analysis for the following:

Client Project Name/No: Arkwood/10150205  
ITAS Project Number: 546.01  
ITAS Login Number: 5685  
Date Received by Lab: July 29, 1994  
Sample No./Type: Four (4) Soil

### I. Introduction

The above samples were received at the ITAS - St. Louis Laboratory for analytical testing. Included is the data summary report for Dioxin by EPA 8280.

The samples were labeled as follows:

<u>Laboratory #</u>	<u>CLIENT SAMPLE IDENTITY</u>
5685-001	2570
5685-002	2571
5685-003	2572
5685-004	2573

### II. Analytical Results/Methodology

The analytical results for this report are presented by analytical test. The data sets include sample identification information, the analytical results, and the appropriate detection limits.

Regional Office

100 International Technology Center • Missouri 63114 • (800) 356-8566 • (314) 991-1100

The Forrester Group  
August 5, 1994  
Project Number: 546.01  
Login Number: 5685

INTERNATIONAL TECHNOLOGY CORPORATION

Page 2

### III. Quality Control

Matrix QC (MS) was not required per client request.

The laboratory control QA/QC information can be found immediately following the analytical data. Control QA/QC data is used to assess the laboratory's performance.

### IV. Comments/Nonconformances

Due to an error in a file used for calculation of the dioxin results, the results were reported incorrectly.

#### Definitions and Qualifiers

B = The associated analyte was seen in the laboratory method blank.

J = The associated value is estimated.

NA = Not Applicable

ND = Analyte was analyzed for and was not detected.

QCBLK = Laboratory method blank.

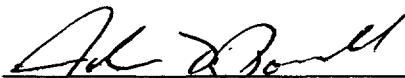
QCLCS = Laboratory control sample.

SURR = Surrogate compound(s)

%RE = Percent recovery.

Reviewed and Approved:

Date:

  
John D. Powell  
ITAS Project Manager

08-05-94



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

REC'D BY: ITC 09/09/94

## CERTIFICATE OF ANALYSIS

August 5, 1994

The Forrester Group  
205 Central Park East, Suite 313  
Springfield, MO 65606

Attention: Mr. Kevin Cassil

This is the Certificate of Analysis for the following:

Client Project Name/No: Arkwood/10150205  
ITAS Project Number: 546.01  
ITAS Login Number: 5507  
Date Received by Lab: July 8, 1994  
Sample No./Type: Four (4) Soil

### I. Introduction

The above samples were received at the ITAS - St. Louis Laboratory for analytical testing. Included is the data summary report for Dioxin by EPA 8280.

The samples were labeled as follows:

<u>Laboratory #</u>	<u>CLIENT SAMPLE IDENTITY</u>
5507-001	2501
5507-002	2503
5507-003	2505
5507-004	2507

### II. Analytical Results/Methodology

The analytical results for this report are presented by analytical test. The data sets include sample identification information, the analytical results, and the appropriate detection limits.

The Forrester Group  
August 5, 1994  
Project Number: 546.01  
Login Number: 5507

INTERNATIONAL TECHNOLOGY CORPORATION

Page 2

### III. Quality Control

Matrix QC (MS) was not required per client request.

The laboratory control QA/QC information can be found immediately following the analytical data. Control QA/QC data is used to assess the laboratory's performance.

### IV. Comments/Nonconformances

Suspected laboratory contamination caused the LCS to be above control limits.

#### Definitions and Qualifiers

B = The associated analyte was seen in the laboratory method blank.

J = The associated value is estimated.

NA = Not Applicable

ND = Analyte was analyzed for and was not detected.

QCBLK = Laboratory method blank.

QCLCS = Laboratory control sample.

SURR = Surrogate compound(s)

%RE = Percent recovery.

Reviewed and Approved:

Date:

  
John D. Powell  
ITAS Project Manager

08-05-94

AUG 9 1994



## CERTIFICATE OF ANALYSIS

August 5, 1994

The Forrester Group  
205 Central Park East, Suite 313  
Springfield, MO 65606

Attention: Mr. Kevin Cassil

This is the Certificate of Analysis for the following:

Client Project Name/No: Arkwood/10150205  
ITAS Project Number: 546.01  
ITAS Login Number: 5525  
Date Received by Lab: July 12, 1994  
Sample No./Type: Five (5) Soil

### I. Introduction

The above samples were received at the ITAS - St. Louis Laboratory for analytical testing. Included is the data summary report for Dioxin by EPA 8280.

The samples were labeled as follows:

<u>Laboratory #</u>	<u>CLIENT SAMPLE IDENTITY</u>
5525-001	2518
5525-002	2520
5525-003	2522
5525-004	2524
5525-005	2526

### II. Analytical Results/Methodology

The analytical results for this report are presented by analytical test. The data sets include sample identification information, the analytical results, and the appropriate detection limits.

The Forrester Group  
August 5, 1994  
Project Number: 546.01  
Login Number: 5525

INTERNATIONAL TECHNOLOGY CORPORATION

Page 2

### III. Quality Control

Matrix QC (MS) was not required per client request.

The laboratory control QA/QC information can be found immediately following the analytical data. Control QA/QC data is used to assess the laboratory's performance.

### IV. Comments/Nonconformances

Suspected laboratory contamination caused the LCS to be above control limits.

#### Definitions and Qualifiers

B = The associated analyte was seen in the laboratory method blank.

J = The associated value is estimated.

NA = Not Applicable

ND = Analyte was analyzed for and was not detected.

QCBLK = Laboratory method blank.

QCLCS = Laboratory control sample.

SURR = Surrogate compound(s)

%RE = Percent recovery.

Reviewed and Approved:

  
John D. Powell  
ITAS Project Manager

Date:

08-05-94







LAB_ID	DATE_SAMPLED	DATE_EXTRA.	DATE_ANALYZ.	METHOD	MATRIX	PARAMETER	CONC	ERR	UNITS	DL	CATEGORY	COMMENT
5685-003	07/22/94	07/30/94	07/30/94	EPA 8280	SOIL	TDCF	ND	NG/G	9.70	DIOXIN		
5685-003	07/22/94	07/30/94	07/30/94	EPA 8280	SOIL	PECDF	ND	NG/G	24.0	DIOXIN		
5685-003	07/22/94	07/30/94	07/30/94	EPA 8280	SOIL	PECDF	ND	NG/G	24.0	DIOXIN		
5685-003	07/22/94	07/30/94	07/30/94	EPA 8280	SOIL	HXCDF	ND	NG/G	24.0	DIOXIN		
5685-003	07/22/94	07/30/94	07/30/94	EPA 8280	SOIL	HXCDF	33.0	ND	DILUTION = 10	DIOXIN		
5685-003	07/22/94	07/30/94	07/31/94	EPA 8280	SOIL	HPCDF	61.0	ND	DILUTION = 10	DIOXIN		
5685-003	07/22/94	07/30/94	07/31/94	EPA 8280	SOIL	HPCDF	830	ND	DILUTION = 10	DIOXIN		
5685-003	07/22/94	07/30/94	07/31/94	EPA 8280	SOIL	HPCDF	830	290	NG/G	24.0	DIOXIN	
5685-003	07/22/94	07/30/94	07/31/94	EPA 8280	SOIL	ODDF	ND	NG/G	24.0	DIOXIN		
5685-003	07/22/94	07/30/94	07/31/94	EPA 8280	SOIL	ODDF	3800	ND	NG/G	460.	DIOXIN	
5685-004	07/22/94	07/30/94	07/30/94	EPA 8280	SOIL	ODDF	380	ND	NG/G	48.0	DIOXIN	
5685-004	07/22/94	07/30/94	07/30/94	EPA 8280	SOIL	TODD	ND	NG/G	9.60	DIOXIN		
5685-004	07/22/94	07/30/94	07/31/94	EPA 8280	SOIL	TODF	ND	NG/G	9.60	DIOXIN		
5685-004	07/22/94	07/30/94	07/31/94	EPA 8280	SOIL	PECDF	ND	NG/G	24.0	DIOXIN		
5685-004	07/22/94	07/30/94	07/31/94	EPA 8280	SOIL	PECDF	ND	NG/G	24.0	DIOXIN		
5685-004	07/22/94	07/30/94	07/31/94	EPA 8280	SOIL	HXCDF	ND	NG/G	24.0	DIOXIN		
5685-004	07/22/94	07/30/94	07/31/94	EPA 8280	SOIL	HXCDF	42.0	ND	DILUTION = 10	DIOXIN		
5685-004	07/22/94	07/30/94	07/31/94	EPA 8280	SOIL	HPCDF	570	ND	DILUTION = 10	DIOXIN		
5685-004	07/22/94	07/30/94	07/31/94	EPA 8280	SOIL	HPCDF	250	ND	DILUTION = 10	DIOXIN		
5685-004	07/22/94	07/30/94	07/31/94	EPA 8280	SOIL	ODDF	ND	NG/G	480.	DIOXIN		
5685-004	07/22/94	07/30/94	07/31/94	EPA 8280	SOIL	ODDF	340	ND	NG/G	48.0	DIOXIN	
BLK40904	NA	07/22/94	07/30/94	EPA 8280	SOIL	TODD	ND	ND	ND	DIOXIN		
BLK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	TODF	ND	ND	ND	DIOXIN		
BLK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	PECDF	ND	ND	ND	DIOXIN		
BLK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	HXCDF	ND	ND	ND	DIOXIN		
BLK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	HXCDF	340	ND	NG/G	25.0	DIOXIN	
BLK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	HPCDF	ND	ND	ND	DIOXIN		
BLK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	ODDF	ND	ND	ND	DIOXIN		
BLK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	ODDF	ND	NG/G	25.0	DIOXIN		
BLK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	TODD	ND	NG/G	25.0	DIOXIN		
BLK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	TODF	ND	NG/G	25.0	DIOXIN		
BLK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	PECDF	ND	NG/G	25.0	DIOXIN		
BLK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	HXCDF	ND	NG/G	25.0	DIOXIN		
BLK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	HXCDF	340	ND	NG/G	25.0	DIOXIN	
BLK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	HPCDF	ND	ND	ND	DIOXIN		
BLK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	ODDF	ND	ND	ND	DIOXIN		
BLK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	ODDF	ND	NG/G	50.0	DIOXIN		
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	TODD	ND	ND	ND	DIOXIN		
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	TODF	ND	ND	ND	DIOXIN		
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	PECDF	ND	ND	ND	DIOXIN		
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	PECDF	ND	ND	ND	DIOXIN		
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	HXCDF	ND	ND	ND	DIOXIN		
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	HXCDF	340	ND	NG/G	25.0	DIOXIN	
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	HPCDF	ND	ND	ND	DIOXIN		
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	ODDF	ND	ND	ND	DIOXIN		
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	ODDF	ND	NG/G	25.0	DIOXIN		
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	TODD	ND	NG/G	25.0	DIOXIN		
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	TODF	ND	NG/G	25.0	DIOXIN		
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	PECDF	ND	NG/G	25.0	DIOXIN		
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	HXCDF	ND	NG/G	25.0	DIOXIN		
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	HXCDF	340	ND	NG/G	25.0	DIOXIN	
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	HPCDF	ND	ND	ND	DIOXIN		
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	ODDF	ND	ND	ND	DIOXIN		
BLK41908	NA	07/27/94	07/27/94	EPA 8280	SOIL	ODDF	ND	NG/G	1.00	DIOXIN		
BLK42120	NA	07/30/94	07/30/94	EPA 8280	SOIL	TODF	ND	NG/G	2.50	DIOXIN		
BLK42120	NA	07/30/94	07/30/94	EPA 8280	SOIL	PECDF	ND	NG/G	2.50	DIOXIN		
BLK42120	NA	07/30/94	07/30/94	EPA 8280	SOIL	HXCDF	ND	NG/G	2.50	DIOXIN		
BLK42120	NA	07/30/94	07/30/94	EPA 8280	SOIL	HXCDF	340	ND	NG/G	2.50	DIOXIN	
BLK42120	NA	07/30/94	07/30/94	EPA 8280	SOIL	HPCDF	ND	ND	ND	DIOXIN		
BLK42120	NA	07/30/94	07/30/94	EPA 8280	SOIL	ODDF	ND	NG/G	5.00	DIOXIN		
SPK40904	NA	07/12/94	07/13/94	EPA 8280	SOIL	TODD	ND	NG/G	5.00	DIOXIN		

LAB_ID	DATE SAMPLED	DATE EXTRA.	DATE ANALYZ.	METHOD	MATRIX	PARAMETER	CONC	ERR	UNITS	D.L.	CATEGORY	COMMENTS
SPK40904	MA 07/12/94		07/13/94	EPA 8280	SOIL	TODF	111		XREC	DIOXIN		
SPK40904	MA 07/12/94		07/13/94	EPA 8280	SOIL	PECDF	105		XREC	DIOXIN		
SPK40904	MA 07/12/94		07/13/94	EPA 8280	SOIL	PECDF	105		XREC	DIOXIN		
SPK40904	MA 07/12/94		07/13/94	EPA 8280	SOIL	HXDF	114		XREC	DIOXIN		
SPK40904	MA 07/12/94		07/13/94	EPA 8280	SOIL	HXDF	114		XREC	DIOXIN		
SPK40904	MA 07/12/94		07/13/94	EPA 8280	SOIL	HXDF	122		XREC	DIOXIN		
SPK40904	MA 07/12/94		07/13/94	EPA 8280	SOIL	HXDF	122		XREC	DIOXIN		
SPK40904	MA 07/12/94		07/13/94	EPA 8280	SOIL	HXDF	124		XREC	DIOXIN		
SPK40904	MA 07/12/94		07/13/94	EPA 8280	SOIL	HXDF	119		XREC	DIOXIN		
SPK40904	MA 07/12/94		07/13/94	EPA 8280	SOIL	HXDF	877		XREC	DIOXIN		
SPK40904	MA 07/12/94		07/13/94	EPA 8280	SOIL	OQDF	207		XREC	DIOXIN		
SPK41908	MA 07/27/94		07/27/94	EPA 8280	SOIL	TODF	103		XREC	DIOXIN		
SPK41908	MA 07/27/94		07/27/94	EPA 8280	SOIL	TODF	104		XREC	DIOXIN		
SPK41908	MA 07/27/94		07/27/94	EPA 8280	SOIL	PECDF	68.0		XREC	DIOXIN		
SPK41908	MA 07/27/94		07/27/94	EPA 8280	SOIL	PECDF	68.0		XREC	DIOXIN		
SPK41908	MA 07/27/94		07/27/94	EPA 8280	SOIL	HXDF	79.0		XREC	DIOXIN		
SPK41908	MA 07/27/94		07/27/94	EPA 8280	SOIL	HXDF	77.0		XREC	DIOXIN		
SPK41908	MA 07/27/94		07/27/94	EPA 8280	SOIL	HXDF	100		XREC	DIOXIN		
SPK41908	MA 07/27/94		07/27/94	EPA 8280	SOIL	HXDF	104		XREC	DIOXIN		
SPK41908	MA 07/27/94		07/27/94	EPA 8280	SOIL	OQDF	95.0		XREC	DIOXIN		
SPK41908	MA 07/27/94		07/27/94	EPA 8280	SOIL	OQDF	101		XREC	DIOXIN		
SPK42120	MA 07/30/94		07/30/94	EPA 8280	SOIL	TODF	102		XREC	DIOXIN		
SPK42120	MA 07/30/94		07/30/94	EPA 8280	SOIL	TODF	105		XREC	DIOXIN		
SPK42120	MA 07/30/94		07/30/94	EPA 8280	SOIL	PECDF	109		XREC	DIOXIN		
SPK42120	MA 07/30/94		07/30/94	EPA 8280	SOIL	PECDF	109		XREC	DIOXIN		
SPK42120	MA 07/30/94		07/30/94	EPA 8280	SOIL	HXDF	82.0		XREC	DIOXIN		
SPK42120	MA 07/30/94		07/30/94	EPA 8280	SOIL	HXDF	101		XREC	DIOXIN		
SPK42120	MA 07/30/94		07/30/94	EPA 8280	SOIL	HXDF	85.0		XREC	DIOXIN		
SPK42120	MA 07/30/94		07/30/94	EPA 8280	SOIL	HXDF	104		XREC	DIOXIN		
SPK42120	MA 07/30/94		07/30/94	EPA 8280	SOIL	OQDF	94.0		XREC	DIOXIN		
SPK42120	MA 07/30/94		07/30/94	EPA 8280	SOIL	OQDF	97.0		XREC	DIOXIN		

**ENVIRONMENTAL TESTING & CONSULTING, INC.** SEP 06 1994  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # **10150205**  
 FID #

Date Arrived **08/06/94**  
 ETC Order Number **9408176**

Revised  
**Detection Limits**

ETC Lab ID **9408176-03**  
 Sample ID: **2633**

**Matrix :SOIL**  
**Sample Date :08/05/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/06/94	08/07/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	1370			
Benzo(b)fluoranthene	ND ug/Kg	3390			
Benzo(k)flouranthene	ND ug/Kg	3010			
Benzo(a)pyrene	ND ug/Kg	2730			
Chrysene	ND ug/Kg	1620			
Dibenzo(a,h)anthracene	ND ug/Kg	5360			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	6480			
Pentachlorophenol	246,000j ug/Kg	25200			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	71	23 120
S2 - 2-Fluorobiphenyl	111	30 115
S3 - 4-Terphenyl-d14	113	18 137
S4 - Phenol-d6	90	24 113
S5 - 2,4,6-Tribromophenol	105	19 122
S6 - 2-Fluorophenol	65	25 121

Not Detected  
*J. Dugay*  
 Quality Manager

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # 10150205  
 FID #

**328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806**

Site ID **Arkwood**

*RECEIVED  
 SEP 02 1994  
 ETC*

Date Arrived 08/25/94

ETC Order Number 9408620

ETC Lab ID 9408620-01

Sample ID: 2708

Matrix :SOIL  
 Sample Date :08/17/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/25/94	08/26/94	SB
Benzo(a)anthracene	ND ug/Kg	274			
Benzo(b)fluoranthene	ND ug/Kg	678			
Benzo(k)flouranthene	ND ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	ND ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	113,500 ug/Kg	5040			

<u>Surrogate Standard</u>	<u>% Recovery</u>	<u>QC Limits</u>
S1 - Nitrobenzene-d5	36	23 120
S2 - 2-Fluorobiphenyl	39	30 115
S3 - 4-Terphenyl-d14	46	18 137
S4 - Phenol-d6	35	24 113
S5 - 2,4,6-Tribromophenol	38	19 122
S6 - 2-Fluorophenol	32	25 121

ND - Not Detected

*M.J.P.*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

**Client Name** The Forrester Group  
**Site ID** Arkwood  
328 Boonville  
P.O. Box 6406  
Springfield, MO 65806

Project # 10150205  
FID #

Date Arrived 08/25/94  
ETC Order Number 9408620

ETC Lab ID 9408620-02

Sample ID: 2709

Matrix :SOIL  
Sample Date :08/17/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/25/94	08/26/94	8270 SB
Benzo(a)anthracene	ND ug/Kg	274			
Benzo(b)fluoranthene	ND ug/Kg	678			
Benzo(k)flouranthene	ND ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	ND ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	17,300 ug/Kg	5040			
<u>Surrogate Standard</u>					
	% Recovery	QC Limits			
S1 - Nitrobenzene-d5	24	23	120		
S2 - 2-Fluorobiphenyl	26 Q	30	115		
S3 - 4-Terphenyl-d14	38	18	137		
S4 - Phenol-d6	Q	24	113		
S5 - 2,4,6-Tribromophenol	14 Q	19	122		
S6 - 2-Fluorophenol	8 Q	25	121		

ND - Not Detected

Not Belonged  
1/10/1 Rez  
LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    **The Forrester Group**  
 Site ID         **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 08/25/94  
 ETC Order Number 9408620

ETC Lab ID 9408620-03  
 Sample ID: 2710

Matrix :SOIL  
 Sample Date :08/17/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/25/94	08/26/94	SB
Benzo(a)anthracene	ND ug/Kg	274			
Benzo(b)fluoranthene	ND ug/Kg	678			
Benzo(k)flouranthene	ND ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	ND ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	272,500 ug/Kg	5040			

Surrogate Standard	% Recovery	QC Limits	
S1 - Nitrobenzene-d5	35	23	120
S2 - 2-Fluorobiphenyl	41	30	115
S3 - 4-Terphenyl-d14	47	18	137
S4 - Phenol-d6	35	24	113
S5 - 2,4,6-Tribromophenol	43	19	122
S6 - 2-Fluorophenol	31	25	121

ND - Not Detected

*Mark J. Lee*  
 TAKODA TOODY MANAGED

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    The Forrester Group  
 Site ID         Arkwood  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 08/25/94  
 ETC Order Number 9408620

ETC Lab ID 9408620-04  
 Sample ID: 2711

Matrix :SOIL  
 Sample Date :08/24/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/25/94	08/26/94	SB 8270
Benzo(a)anthracene	ND ug/Kg	274			
Benzo(b)fluoranthene	ND ug/Kg	678			
Benzo(k)flouranthene	ND ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	ND ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	182,500 ug/Kg	5040			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	26	23	120		
S2 - 2-Fluorobiphenyl	37	30	115		
S3 - 4-Terphenyl-d14	46	18	137		
S4 - Phenol-d6	29	24	113		
S5 - 2,4,6-Tribromophenol	38	19	122		
S6 - 2-Fluorophenol	19 Q	25	121		

ND - Not Detected

*Mark J. Lee*  
 LABORATORY MANAGED

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID **Arkwood**

Project # 10150205  
 FID #

Date Arrived 08/25/94  
 ETC Order Number 9408620

ETC Lab ID 9408620-05  
 Sample ID: 2712

Matrix :SOIL  
 Sample Date :08/24/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/25/94	08/26/94	8270 SB
Benzo(a)anthracene	ND ug/Kg	274			
Benzo(b)fluoranthene	ND ug/Kg	678			
Benzo(k)flouranthene	ND ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	ND ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	135,500j ug/Kg	5040			

<u>Surrogate Standard</u>	<u>% Recovery</u>	<u>QC Limits</u>
S1 - Nitrobenzene-d5	33	23 120
S2 - 2-Fluorobiphenyl	49	30 115
S3 - 4-Terphenyl-d14	59	18 137
S4 - Phenol-d6	35	24 113
S5 - 2,4,6-Tribromophenol	55	19 122
S6 - 2-Fluorophenol	29	25 121

ND - Not Detected

*Mark J. Lee*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID **Arkwood**

Project # **10150205**  
 FID #

Date Arrived **08/25/94**  
 ETC Order Number **9408620**

ETC Lab ID **9408620-06**  
 Sample ID: **2713**      Matrix :**SOIL**  
 Sample Date :**08/24/94**

<b>TEST</b>	<b>RESULT UNITS</b>	<b>DETECTION LIMIT</b>	<b>DATE EXTRACTED</b>	<b>DATE ANALYZED</b>	<b>BY METHOD</b>
<b>Base/Neutral &amp; Acid Ext</b>					8270
Benzo(a)anthracene	ND ug/Kg	274			
Benzo(b)fluoranthene	ND ug/Kg	678			
Benzo(k)flouranthene	ND ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	ND ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	160,300 ug/Kg	5040			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	36	23	120		
S2 - 2-Fluorobiphenyl	46	30	115		
S3 - 4-Terphenyl-d14	39	18	137		
S4 - Phenol-d6	36	24	113		
S5 - 2,4,6-Tribromophenol	49	19	122		
S6 - 2-Fluorophenol	31	25	121		

ND - Not Detected

*Mark S. King*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

**RECEIVED**

SEP 06 1994

Client Name **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID **Arkwood**

Project # **10150205**  
 FID #

Date Arrived 08/24/94  
 ETC Order Number 9408577

ETC Lab ID 9408577-01  
 Sample ID: 2702

Matrix :SOIL  
 Sample Date :08/23/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/24/94	08/25/94	SB 8270
Benzo(a)anthracene	ND ug/Kg	274			
Benzo(b)fluoranthene	ND ug/Kg	678			
Benzo(k)flouranthene	ND ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	ND ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	264,000j ug/Kg	5040			

<u>Surrogate Standard</u>	<u>% Recovery</u>	<u>QC Limits</u>
S1 - Nitrobenzene-d5	37	23 120
S2 - 2-Fluorobiphenyl	49	30 115
S3 - 4-Terphenyl-d14	51	18 137
S4 - Phenol-d6	36	24 113
S5 - 2,4,6-Tribromophenol	57	19 122
S6 - 2-Fluorophenol	32	25 121

ND - Not Detected

*N.M.J.Lee*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    **The Forrester Group**  
 Site ID         **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 08/24/94  
 ETC Order Number 9408577

ETC Lab ID 9408577-02  
 Sample ID: 2703

Matrix :SOIL  
 Sample Date :08/23/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/24/94	08/25/94	SB
Benzo(a)anthracene	ND ug/Kg	274			
Benzo(b)fluoranthene	ND ug/Kg	678			
Benzo(k)flouranthene	ND ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	ND ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	386,000j ug/Kg	5040			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	42	23	120		
S2 - 2-Fluorobiphenyl	54	30	115		
S3 - 4-Terphenyl-d14	48	18	137		
S4 - Phenol-d6	36	24	113		
S5 - 2,4,6-Tribromophenol	59	19	122		
S6 - 2-Fluorophenol	32	25	121		

ND - Not Detected

*W.M.J. [Signature]*  
 TAKODA/TODD MANAGED

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    The Forrester Group  
 Site ID         Arkwood  
 Address         328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 08/24/94  
 ETC Order Number 9408577

ETC Lab ID 9408577-03  
 Sample ID: 2704

Matrix :SOIL  
 Sample Date :08/23/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/24/94	08/25/94	SB
Benzo(a)anthracene	ND ug/Kg	274			
Benzo(b)fluoranthene	ND ug/Kg	678			
Benzo(k)flouranthene	ND ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	ND ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	505,000 ug/Kg	5040			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	45	23	120		
S2 - 2-Fluorobiphenyl	59	30	115		
S3 - 4-Terphenyl-d14	52	18	137		
S4 - Phenol-d6	42	24	113		
S5 - 2,4,6-Tribromophenol	61	19	122		
S6 - 2-Fluorophenol	36	25	121		

ND - Not Detected

*W.M. J. Flug*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
**2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750**  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
Site ID **Arkwood**  
328 Boonville  
P.O. Box 6406  
Springfield, MO 65806

Project # 10150205  
FID #

Date Arrived 08/24/94  
ETC Order Number 9408577

ETC Lab ID 9408577-04  
Sample ID: 2705

Matrix :SOIL  
Sample Date :08/23/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/24/94	08/25/94	8270 SB
Benzo(a)anthracene	ND ug/Kg	274			
Benzo(b)fluoranthene	ND ug/Kg	678			
Benzo(k)flouranthene	ND ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	ND ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	ND ug/Kg	5040			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	35	23	120		
S2 - 2-Fluorobiphenyl	44	30	115		
S3 - 4-Terphenyl-d14	44	18	137		
S4 - Phenol-d6	31	24	113		
S5 - 2,4,6-Tribromophenol	42	19	122		
S6 - 2-Fluorophenol	26	25	121		

ND - Not Detected

*Not 1/2*  
LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    **The Forrester Group**  
 Site ID         **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 08/24/94  
 ETC Order Number 9408577

ETC Lab ID 9408577-05  
 Sample ID: 2510

Matrix :AQUEOUS  
 Sample Date :08/23/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/24/94	08/25/94	8270 SB
Benzo(a)anthracene	ND ug/L	8.58			
Benzo(b)fluoranthene	ND ug/L	5.28			
Benzo(k)flouranthene	ND ug/L	2.75			
Benzo(a)pyrene	ND ug/L	2.75			
Chrysene	ND ug/L	2.75			
Dibenzo(a,h)anthracene	ND ug/L	2.75			
Indeno(1,2,3-cd)pyrene	ND ug/L	4.07			
Pentachlorophenol	ND ug/L	3.96			

<u>Surrogate Standard</u>	<u>% Recovery</u>	<u>QC Limits</u>	
S1 - Nitrobenzene-d5	71	35	114
S2 - 2-Fluorobiphenyl	75	43	116
S3 - 4-Terphenyl-d14	85	33	141
S4 - Phenol-d6	34	10	94
S5 - 2,4,6-Tribromophenol	74	10	123
S6 - 2-Fluorophenol	43	21	100

ND - Not Detected

*Mark L. Price*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # 10150205  
 FID #

328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Site ID **Arkwood**

Date Arrived 08/19/94  
 ETC Order Number 9408493

REF ID: 10150205  
 AUG 31 1994  
 Lab No. 10150205

ETC Lab ID 9408493-01  
 Sample ID: 2508

Matrix :AQUEOUS  
 Sample Date :08/18/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/19/94	08/21/94	DC 8270
Benzo(a)anthracene	ND ug/L	8.58			
Benzo(b)fluoranthene	ND ug/L	5.28			
Benzo(k)flouranthene	ND ug/L	2.75			
Benzo(a)pyrene	ND ug/L	2.75			
Chrysene	ND ug/L	2.75			
Dibenzo(a,h)anthracene	ND ug/L	2.75			
Indeno(1,2,3-cd)pyrene	ND ug/L	4.07			
Pentachlorophenol	ND ug/L	3.96			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	61	35	114		
S2 - 2-Fluorobiphenyl	68	43	116		
S3 - 4-Terphenyl-d14	112	33	141		
S4 - Phenol-d6	27	10	94		
S5 - 2,4,6-Tribromophenol	65	10	123		
S6 - 2-Fluorophenol	31	21	100		

ND - Not Detected

*Mark J. Bus*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    The Forrester Group  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID       Arkwood

Project # 10150205  
 FID #

Date Arrived 08/19/94  
 ETC Order Number 9408493

ETC Lab ID 9408493-02  
 Sample ID: 2582

Matrix :SOIL  
 Sample Date :08/17/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/19/94	08/21/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	7800			
Benzo(b)fluoranthene	ND ug/Kg	4800			
Benzo(k)flouranthene	ND ug/Kg	2500			
Benzo(a)pyrene	ND ug/Kg	2500			
Chrysene	ND ug/Kg	2500			
Dibenzo(a,h)anthracene	ND ug/Kg	2500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3690			
Pentachlorophenol	140,000j ug/Kg	3600			

Surrogate Standard	% Recovery	QC Limits	
S1 - Nitrobenzene-d5	41	23	120
S2 - 2-Fluorobiphenyl	49	30	115
S3 - 4-Terphenyl-d14	52	18	137
S4 - Phenol-d6	36	24	113
S5 - 2,4,6-Tribromophenol	48	19	122
S6 - 2-Fluorophenol	35	25	121

ND - Not Detected

*Mitchell J. Lewis*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID **Arkwood**

Project # **10150205**  
 FID #

Date Arrived 08/19/94  
 ETC Order Number 9408493

ETC Lab ID **9408493-03**  
 Sample ID: **2583**

Matrix :SOIL  
 Sample Date :08/17/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/19/94	08/21/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	7800			
Benzo(b)fluoranthene	ND ug/Kg	4800			
Benzo(k)flouranthene	ND ug/Kg	2500			
Benzo(a)pyrene	ND ug/Kg	2500			
Chrysene	ND ug/Kg	2500			
Dibenzo(a,h)anthracene	ND ug/Kg	2500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3690			
Pentachlorophenol	231,000j ug/Kg	3600			

<u>Surrogate Standard</u>	% Recovery	QC Limits	
S1 - Nitrobenzene-d5	45	23	120
S2 - 2-Fluorobiphenyl	54	30	115
S3 - 4-Terphenyl-d14	62	18	137
S4 - Phenol-d6	40	24	113
S5 - 2,4,6-Tribromophenol	53	19	122
S6 - 2-Fluorophenol	38	25	121

ND - Not Detected

*M. J. L.*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    **The Forrester Group**  
 Site ID         **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 08/19/94  
 ETC Order Number 9408493

ETC Lab ID 9408493-04  
 Sample ID: 2584

Matrix :SOIL  
 Sample Date :08/17/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/19/94	08/21/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	7800			
Benzo(b)fluoranthene	ND ug/Kg	4800			
Benzo(k)flouranthene	ND ug/Kg	2500			
Benzo(a)pyrene	ND ug/Kg	2500			
Chrysene	ND ug/Kg	2500			
Dibenzo(a,h)anthracene	ND ug/Kg	2500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3690			
Pentachlorophenol	379,000j ug/Kg	3600			

<u>Surrogate Standard</u>	<u>% Recovery</u>	<u>QC Limits</u>
S1 - Nitrobenzene-d5	55	23 120
S2 - 2-Fluorobiphenyl	63	30 115
S3 - 4-Terphenyl-d14	67	18 137
S4 - Phenol-d6	46	24 113
S5 - 2,4,6-Tribromophenol	58	19 122
S6 - 2-Fluorophenol	46	25 121

ND - Not Detected

*W.M. J. Ries*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

**328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806**

Site ID **Arkwood**

Date Arrived **08/19/94**  
 ETC Order Number **9408493**

ETC Lab ID **9408493-05**  
 Sample ID: **2585**

Matrix :**SOIL**  
 Sample Date :**08/17/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE	EXTRACTED	ANALYZED	BY METHOD
			8270			
Base/Neutral & Acid Ext			08/19/94	08/21/94	DC	
Benzo(a)anthracene	ND ug/Kg	7800				
Benzo(b)fluoranthene	ND ug/Kg	4800				
Benzo(k)flouranthene	ND ug/Kg	2500				
Benzo(a)pyrene	ND ug/Kg	2500				
Chrysene	ND ug/Kg	2500				
Dibenzo(a,h)anthracene	ND ug/Kg	2500				
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3690				
Pentachlorophenol	298,000j ug/Kg	3600				

<u>Surrogate Standard</u>	% Recovery	QC Limits	
S1 - Nitrobenzene-d5	60	23	120
S2 - 2-Fluorobiphenyl	67	30	115
S3 - 4-Terphenyl-d14	76	18	137
S4 - Phenol-d6	48	24	113
S5 - 2,4,6-Tribromophenol	68	19	122
S6 - 2-Fluorophenol	47	25	121

ND - Not Detected

*John J. Eng*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID        Arkwood

Project # 10150205  
 FID #

Date Arrived 08/19/94  
 ETC Order Number 9408493

ETC Lab ID 9408493-06  
 Sample ID: 2588

Matrix :SOIL  
 Sample Date :08/18/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/19/94	08/21/94	DC 8270
Benzo(a)anthracene	6,720j ug/Kg	7800			
Benzo(b)fluoranthene	10,800 ug/Kg	4800			
Benzo(k)flouranthene	4,530 ug/Kg	2500			
Benzo(a)pyrene	ND ug/Kg	2500			
Chrysene	11,600 ug/Kg	2500			
Dibenzo(a,h)anthracene	ND ug/Kg	2500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3690			
Pentachlorophenol	322,000j ug/Kg	3600			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	42	23	120		
S2 - 2-Fluorobiphenyl	56	30	115		
S3 - 4-Terphenyl-d14	59	18	137		
S4 - Phenol-d6	37	24	113		
S5 - 2,4,6-Tribromophenol	58	19	122		
S6 - 2-Fluorophenol	34	25	121		

ND - Not Detected

*W.L. J. Lue*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID **Arkwood**

Project # 10150205  
 FID #

Date Arrived 08/19/94  
 ETC Order Number 9408493

ETC Lab ID 9408493-07  
 Sample ID: 2589

Matrix :SOIL  
 Sample Date :08/18/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/19/94	08/21/94	8270 DC
Benzo(a)anthracene	7,020j ug/Kg	7800			
Benzo(b)fluoranthene	9,610 ug/Kg	4800			
Benzo(k)flouranthene	5,980 ug/Kg	2500			
Benzo(a)pyrene	ND ug/Kg	2500			
Chrysene	11,300 ug/Kg	2500			
Dibenzo(a,h)anthracene	ND ug/Kg	2500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3690			
Pentachlorophenol	377,000j ug/Kg	3600			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	44	23	120		
S2 - 2-Fluorobiphenyl	62	30	115		
S3 - 4-Terphenyl-d14	69	18	137		
S4 - Phenol-d6	38	24	113		
S5 - 2,4,6-Tribromophenol	67	19	122		
S6 - 2-Fluorophenol	35	25	121		

ND - Not Detected

*M.H. J. L.*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID **Arkwood**

Project # **10150205**  
 FID # *DR*

*AUG 29 1994*

Date Arrived 08/19/94  
 ETC Order Number 9408493

ETC Lab ID 9408493-01  
 Sample ID: 2508

Matrix :AQUEOUS  
 Sample Date :08/18/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/19/94	08/21/94	8270 DC
Benzo(a)anthracene	ND ug/L	8.58			
Benzo(b)fluoranthene	ND ug/L	5.28			
Benzo(k)flouranthene	ND ug/L	2.75			
Benzo(a)pyrene	ND ug/L	2.75			
Chrysene	ND ug/L	2.75			
Dibenzo(a,h)anthracene	ND ug/L	2.75			
Indeno(1,2,3-cd)pyrene	ND ug/L	4.07			
Pentachlorophenol	ND ug/L	3.96			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	61	35	114		
S2 - 2-Fluorobiphenyl	68	43	116		
S3 - 4-Terphenyl-d14	112	33	141		
S4 - Phenol-d6	27	10	94		
S5 - 2,4,6-Tribromophenol	65	10	123		
S6 - 2-Fluorophenol	31	21	100		

ND - Not Detected

*W.M. J. Lee*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    **The Forrester Group**  
 Site ID         **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 08/19/94  
 ETC Order Number 9408493

ETC Lab ID 9408493-06  
 Sample ID: 2688

Matrix :SOIL  
 Sample Date :08/18/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/19/94	08/21/94	DC 8270
Benzo(a)anthracene	6,720 ug/Kg	274			
Benzo(b)fluoranthene	10,800 ug/Kg	678			
Benzo(k)flouranthene	4,530 ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	11,600 ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	322,000j ug/Kg	5040			

Surrogate Standard	% Recovery	QC Limits	
S1 - Nitrobenzene-d5	42	23	120
S2 - 2-Fluorobiphenyl	56	30	115
S3 - 4-Terphenyl-d14	59	18	137
S4 - Phenol-d6	37	24	113
S5 - 2,4,6-Tribromophenol	58	19	122
S6 - 2-Fluorophenol	34	25	121

ND - Not Detected

*Mark J. Flue*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **328 Boonville  
P.O. Box 6406  
Springfield, MO 65806  
Arkwood**

Project # **10150205**  
 FID #

Date Arrived **08/19/94**  
 ETC Order Number **9408493**

ETC Lab ID **9408493-07**  
 Sample ID: **2689**

Matrix :**SOIL**  
 Sample Date :**08/18/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext					8270
Benzo(a)anthracene	7,020 ug/Kg	274	08/19/94	08/21/94	DC
Benzo(b)fluoranthene	9,610 ug/Kg	678			
Benzo(k)flouranthene	5,980 ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	11,300 ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	377,000 ug/Kg	5040			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	44	23	120		
S2 - 2-Fluorobiphenyl	62	30	115		
S3 - 4-Terphenyl-d14	69	18	137		
S4 - Phenol-d6	38	24	113		
S5 - 2,4,6-Tribromophenol	67	19	122		
S6 - 2-Fluorophenol	35	25	121		

ND - Not Detected

*N.M. J. Fins*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    **The Forrester Group**  
 Site ID         **Arkwood**  
 Address         **328 Boonville  
P.O. Box 6406  
Springfield, MO 65806**

Project # **10150205**  
 FID #

Date Arrived **08/19/94**  
 ETC Order Number **9408493**

ETC Lab ID **9408493-02**  
 Sample ID: **2682**                  Matrix :SOIL  
 Sample Date :**08/17/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/19/94	08/21/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	274			
Benzo(b)fluoranthene	ND ug/Kg	678			
Benzo(k)flouranthene	ND ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	ND ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	140,000j ug/Kg	5040			

Surrogate Standard	% Recovery	QC Limits	
S1 - Nitrobenzene-d5	41	23	120
S2 - 2-Fluorobiphenyl	49	30	115
S3 - 4-Terphenyl-d14	52	18	137
S4 - Phenol-d6	36	24	113
S5 - 2,4,6-Tribromophenol	48	19	122
S6 - 2-Fluorophenol	35	25	121

ND - Not Detected

*Walt J. Lewis*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    **The Forrester Group**  
 Site ID         **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 08/19/94  
 ETC Order Number 9408493

ETC Lab ID 9408493-03  
 Sample ID: 2683

Matrix :SOIL  
 Sample Date :08/17/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/19/94	08/21/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	274			
Benzo(b)fluoranthene	ND ug/Kg	678			
Benzo(k)flouranthene	ND ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	ND ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	231,000j ug/Kg	5040			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	45	23	120		
S2 - 2-Fluorobiphenyl	54	30	115		
S3 - 4-Terphenyl-d14	62	18	137		
S4 - Phenol-d6	40	24	113		
S5 - 2,4,6-Tribromophenol	53	19	122		
S6 - 2-Fluorophenol	38	25	121		

ND - Not Detected

*Mark J. Lewis*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    **The Forrester Group**  
 Site ID         **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 08/19/94  
 ETC Order Number 9408493

ETC Lab ID 9408493-04  
 Sample ID: 2684

Matrix :SOIL  
 Sample Date :08/17/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/19/94	08/21/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	274			
Benzo(b)fluoranthene	ND ug/Kg	678			
Benzo(k)flouranthene	ND ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	ND ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	379,000j ug/Kg	5040			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	55	23	120		
S2 - 2-Fluorobiphenyl	63	30	115		
S3 - 4-Terphenyl-d14	67	18	137		
S4 - Phenol-d6	46	24	113		
S5 - 2,4,6-Tribromophenol	58	19	122		
S6 - 2-Fluorophenol	46	25	121		

ND - Not Detected

*Not Labeled*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    The Forrester Group  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID        Arkwood

Date Arrived 08/19/94  
 ETC Order Number 9408493

ETC Lab ID 9408493-05  
 Sample ID: 2685

Project # 10150205  
 FID #

Matrix :SOIL  
 Sample Date :08/17/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/19/94	08/21/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	274			
Benzo(b)fluoranthene	ND ug/Kg	678			
Benzo(k)flouranthene	ND ug/Kg	602			
Benzo(a)pyrene	ND ug/Kg	546			
Chrysene	ND ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	298,000j ug/Kg	5040			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	60	23	120		
S2 - 2-Fluorobiphenyl	67	30	115		
S3 - 4-Terphenyl-d14	76	18	137		
S4 - Phenol-d6	48	24	113		
S5 - 2,4,6-Tribromophenol	68	19	122		
S6 - 2-Fluorophenol	47	25	121		

ND - Not Detected

Mark J. Linn  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    The Forrester Group  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID       Arkwood

Project # 10150205  
 FID #

Date Arrived 08/18/94  
 ETC Order Number 9408460

ETC Lab ID 9408460-02  
 Sample ID: 2681

Matrix :SOIL  
 Sample Date :08/17/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/18/94	08/19/94	8270 DC
Benzo(a)anthracene	5,180 ug/Kg	274			
Benzo(b)fluoranthene	4,930 ug/Kg	678			
Benzo(k)flouranthene	7,520 ug/Kg	602			
Benzo(a)pyrene	2,530 ug/Kg	546			
Chrysene	8,770 ug/Kg	324			
Dibenzo(a,h)anthracene	ND ug/Kg	1070			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1300			
Pentachlorophenol	181,000 ug/Kg	5040			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	80	23 120
S2 - 2-Fluorobiphenyl	116 Q	30 115
S3 - 4-Terphenyl-d14	154 Q	18 137
S4 - Phenol-d6	79	24 113
S5 - 2,4,6-Tribromophenol	111	19 122
S6 - 2-Fluorophenol	79	25 121

ND - Not Detected

Mary J. Eng  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

**Client Name** The Forrester Group  
**Site ID** Arkwood  
328 Boonville  
P.O. Box 6406  
Springfield, MO 65806

Project # 10150205  
FID #

Date Arrived 08/06/94  
ETC Order Number 9408176

ETC Lab ID 9408176-02

Sample ID: 2632

Matrix :SOIL  
Sample Date :08/05/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	DATE BY METHOD
Base/Neutral & Acid Ext					8270
Benzo(a)anthracene	ND ug/Kg	1370			
Benzo(b)fluoranthene	ND ug/Kg	3390			
Benzo(k)flouranthene	ND ug/Kg	3010			
Benzo(a)pyrene	ND ug/Kg	2730			
Chrysene	ND ug/Kg	1620			
Dibenzo(a,h)anthracene	ND ug/Kg	5360			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	6480			
Pentachlorophenol	275,000j ug/Kg	25200			

<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>OC Limits</b>
S1 - Nitrobenzene-d5	88	23 120
S2 - 2-Fluorobiphenyl	107	30 115
S3 - 4-Terphenyl-d14	113	18 137
S4 - Phenol-d6	95	24 113
S5 - 2,4,6-Tribromophenol	31	19 122
S6 - 2-Fluorophenol	89	25 121

ND - Not Detected

Mrs. J. E. L.  
LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID **Arkwood**

Project # **10150205**  
 FID #

Date Arrived **08/06/94**  
 ETC Order Number **9408176**

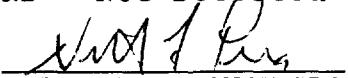
ETC Lab ID **9408176-01**  
 Sample ID: **2630**

Matrix :SOIL  
 Sample Date :**08/05/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/06/94	08/07/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	1370			
Benzo(b)fluoranthene	ND ug/Kg	3390			
Benzo(k)flouranthene	ND ug/Kg	3010			
Benzo(a)pyrene	ND ug/Kg	2730			
Chrysene	ND ug/Kg	1620			
Dibenzo(a,h)anthracene	ND ug/Kg	5360			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	6480			
Pentachlorophenol	241,000j ug/Kg	25200			

<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>
S1 - Nitrobenzene-d5	72	23 120
S2 - 2-Fluorobiphenyl	92	30 115
S3 - 4-Terphenyl-d14	100	18 137
S4 - Phenol-d6	82	24 113
S5 - 2,4,6-Tribromophenol	36	19 122
S6 - 2-Fluorophenol	71	25 121

ND - Not Detected

  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    **The Forrester Group**  
 Site ID         **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 07/28/94  
 ETC Order Number 9407642

ETC Lab ID 9407642-05  
 Sample ID: 2600

Matrix :SOIL  
 Sample Date :07/27/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/28/94	07/29/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	2740			
Benzo(b)fluoranthene	ND ug/Kg	6780			
Benzo(k)flouranthene	ND ug/Kg	6020			
Benzo(a)pyrene	ND ug/Kg	5460			
Chrysene	ND ug/Kg	3240			
Dibenzo(a,h)anthracene	ND ug/Kg	10700			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	13000			
Pentachlorophenol	26,200j ug/Kg	50400			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	Q	23	120		
S2 - 2-Fluorobiphenyl	Q	30	115		
S3 - 4-Terphenyl-d14	Q	18	137		
S4 - Phenol-d6	Q	24	113		
S5 - 2,4,6-Tribromophenol	Q	19	122		
S6 - 2-Fluorophenol	Q	25	121		

ND - Not Detected

*Natalie L.*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 07/28/94  
 ETC Order Number 9407642

ETC Lab ID 9407642-06  
 Sample ID: 2601

Matrix :SOIL  
 Sample Date :07/27/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/28/94	07/28/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	13700			
Benzo(b)fluoranthene	ND ug/Kg	33900			
Benzo(k)flouranthene	ND ug/Kg	30100			
Benzo(a)pyrene	ND ug/Kg	27300			
Chrysene	ND ug/Kg	16200			
Dibenzo(a,h)anthracene	ND ug/Kg	53600			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	64800			
Pentachlorophenol	255,000 ug/Kg	252000			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	Q	23	120		
S2 - 2-Fluorobiphenyl	Q	30	115		
S3 - 4-Terphenyl-d14	Q	18	137		
S4 - Phenol-d6	Q	24	113		
S5 - 2,4,6-Tribromophenol	Q	19	122		
S6 - 2-Fluorophenol	Q	25	121		

ND - Not Detected

*Mark J. Lee*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID **Arkwood**

Project # 10150205  
 FID #

Date Arrived 07/28/94  
 ETC Order Number 9407642

ETC Lab ID 9407642-07  
 Sample ID: 2602

Matrix :SOIL  
 Sample Date :07/27/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/28/94	07/29/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	1370			
Benzo(b)fluoranthene	ND ug/Kg	3390			
Benzo(k)flouranthene	ND ug/Kg	3010			
Benzo(a)pyrene	ND ug/Kg	2730			
Chrysene	ND ug/Kg	1620			
Dibenzo(a,h)anthracene	ND ug/Kg	5360			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	6480			
Pentachlorophenol	27,800 ug/Kg	25200			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	90	23	120		
S2 - 2-Fluorobiphenyl	64	30	115		
S3 - 4-Terphenyl-d14	96	18	137		
S4 - Phenol-d6	97	24	113		
S5 - 2,4,6-Tribromophenol	77	19	122		
S6 - 2-Fluorophenol	69	25	121		

ND - Not Detected

*NWA* / *trg*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Site ID **Arkwood**

Project # **10150205**  
 FID #

Date Arrived **07/21/94**  
 ETC Order Number **9407471**

ETC Lab ID **9407471-09**  
 Sample ID: **2546**

Matrix :**SOIL**  
 Sample Date :**07/14/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/21/94	07/22/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	1370			
Benzo(b)fluoranthene	8,060 ug/Kg	3390			
Benzo(k)flouranthene	ND ug/Kg	3010			
Benzo(a)pyrene	2,940 ug/Kg	2730			
Chrysene	3,530 ug/Kg	1620			
Dibenzo(a,h)anthracene	ND ug/Kg	5360			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	6480			
Pentachlorophenol	250,000j ug/Kg	25200			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	28	23	120		
S2 - 2-Fluorobiphenyl	75	30	115		
S3 - 4-Terphenyl-d14	147 Q	18	137		
S4 - Phenol-d6	2 Q	24	113		
S5 - 2,4,6-Tribromophenol	103	19	122		
S6 - 2-Fluorophenol	41	25	121		

ND - Not Detected

*Vivian L. Peas*  
LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID        Arkwood

Project # 10150205  
 FID #

Date Arrived 07/21/94  
 ETC Order Number 9407471

ETC Lab ID 9407471-10  
 Sample ID: 2547

Matrix :SOIL  
 Sample Date :07/14/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/21/94	07/22/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	1370			
Benzo(b)fluoranthene	4,150 ug/Kg	3390			
Benzo(k)flouranthene	ND ug/Kg	3010			
Benzo(a)pyrene	ND ug/Kg	2730			
Chrysene	ND ug/Kg	1620			
Dibenzo(a,h)anthracene	ND ug/Kg	5360			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	6480			
Pentachlorophenol	92,500 ug/Kg	25200			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	8 Q	23	120		
S2 - 2-Fluorobiphenyl	87	30	115		
S3 - 4-Terphenyl-d14	146 Q	18	137		
S4 - Phenol-d6	3 Q	24	113		
S5 - 2,4,6-Tribromophenol	108	19	122		
S6 - 2-Fluorophenol	51	25	121		

ND - Not Detected

*Mark J. R.*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    The Forrester Group  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID        Arkwood

Project # 10150205  
 FID #

Date Arrived 07/21/94  
 ETC Order Number 9407471

ETC Lab ID 9407471-11  
 Sample ID: 2548

Matrix :SOIL  
 Sample Date :07/14/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/21/94	07/22/94	RR 8270
Benzo(a)anthracene	2,140 ug/Kg	1370			
Benzo(b)fluoranthene	13,400 ug/Kg	3390			
Benzo(k)flouranthene	ND ug/Kg	3010			
Benzo(a)pyrene	6,390 ug/Kg	2730			
Chrysene	4,470 ug/Kg	1620			
Dibenzo(a,h)anthracene	ND ug/Kg	5360			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	6480			
Pentachlorophenol	175,000 ug/Kg	25200			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	52	23 120
S2 - 2-Fluorobiphenyl	67	30 115
S3 - 4-Terphenyl-d14	123	18 137
S4 - Phenol-d6	20 Q	24 113
S5 - 2,4,6-Tribromophenol	83	19 122
S6 - 2-Fluorophenol	41	25 121

ND - Not Detected

*W.M. J. King*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 07/21/94  
 ETC Order Number 9407471

ETC Lab ID 9407471-12

Sample ID: 2549

Matrix :SOIL  
 Sample Date :07/14/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/21/94	07/22/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	1370			
Benzo(b)fluoranthene	6,130 ug/Kg	3390			
Benzo(k)flouranthene	ND ug/Kg	3010			
Benzo(a)pyrene	ND ug/Kg	2730			
Chrysene	2,260 ug/Kg	1620			
Dibenzo(a,h)anthracene	ND ug/Kg	5360			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	6480			
Pentachlorophenol	142,000j ug/Kg	25200			

<u>Surrogate Standard</u>	% Recovery	QC Limits
S1 - Nitrobenzene-d5	44	23 120
S2 - 2-Fluorobiphenyl	87	30 115
S3 - 4-Terphenyl-d14	151 Q	18 137
S4 - Phenol-d6	29	24 113
S5 - 2,4,6-Tribromophenol	49	19 122
S6 - 2-Fluorophenol	106	25 121

ND - Not Detected

*Natalie J. Brumley*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID **Arkwood**

Project # **10150205**  
 FID #

Date Arrived **08/20/94**  
 ETC Order Number **9408525**

ETC Lab ID **9408525-01**  
 Sample ID: **2698**

Matrix :SOIL  
 Sample Date :**08/19/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext					8270
Benzo(a)anthracene	ND ug/Kg	7800			
Benzo(b)fluoranthene	ND ug/Kg	4800			
Benzo(k)flouranthene	ND ug/Kg	2500			
Benzo(a)pyrene	ND ug/Kg	2500			
Chrysene	ND ug/Kg	2500			
Dibenzo(a,h)anthracene	ND ug/Kg	2500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3690			
Pentachlorophenol	431,000 ug/Kg	3600			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	47	23	120		
S2 - 2-Fluorobiphenyl	60	30	115		
S3 - 4-Terphenyl-d14	69	18	137		
S4 - Phenol-d6	42	24	113		
S5 - 2,4,6-Tribromophenol	63	19	122		
S6 - 2-Fluorophenol	39	25	121		

ND - Not Detected

*N.M. Lue*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID **Arkwood**

Project # **10150205**  
 FID #

Date Arrived **08/20/94**  
 ETC Order Number **9408525**

ETC Lab ID **9408525-02**  
 Sample ID: **2699**

Matrix :**SOIL**  
 Sample Date :**08/19/94**

<b>TEST</b>	<b>RESULT UNITS</b>	<b>DETECTION LIMIT</b>	<b>DATE EXTRACTED</b>	<b>DATE ANALYZED</b>	<b>BY METHOD</b>
Base/Neutral & Acid Ext			08/20/94	08/22/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	7800			
Benzo(b)fluoranthene	ND ug/Kg	4800			
Benzo(k)flouranthene	ND ug/Kg	2500			
Benzo(a)pyrene	ND ug/Kg	2500			
Chrysene	ND ug/Kg	2500			
Dibenzo(a,h)anthracene	ND ug/Kg	2500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3690			
Pentachlorophenol	336,000j ug/Kg	3600			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	33	23	120		
S2 - 2-Fluorobiphenyl	49	30	115		
S3 - 4-Terphenyl-d14	65	18	137		
S4 - Phenol-d6	32	24	113		
S5 - 2,4,6-Tribromophenol	56	19	122		
S6 - 2-Fluorophenol	27	25	121		

ND - Not Detected

  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

**328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806**

Site ID **Arkwood**

Date Arrived **08/20/94**  
 ETC Order Number **9408525**

ETC Lab ID **9408525-03**  
 Sample ID: **2700**

Matrix :**SOIL**  
 Sample Date :**08/19/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/20/94	08/22/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	7800			
Benzo(b)fluoranthene	ND ug/Kg	4800			
Benzo(k)flouranthene	ND ug/Kg	2500			
Benzo(a)pyrene	ND ug/Kg	2500			
Chrysene	ND ug/Kg	2500			
Dibenzo(a,h)anthracene	ND ug/Kg	2500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3690			
Pentachlorophenol	381,000 ug/Kg	3600			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	40	23 120
S2 - 2-Fluorobiphenyl	50	30 115
S3 - 4-Terphenyl-d14	62	18 137
S4 - Phenol-d6	36	24 113
S5 - 2,4,6-Tribromophenol	57	19 122
S6 - 2-Fluorophenol	34	25 121

ND - Not Detected

*Vivian J. Lewis*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **328 Boonville  
P.O. Box 6406  
Springfield, MO 65806**  
**Arkwood**

Project # **10150205**  
 FID #

Date Arrived **08/20/94**  
 ETC Order Number **9408525**

ETC Lab ID **9408525-04**  
 Sample ID: **2701**

Matrix :**SOIL**  
 Sample Date :**08/19/94**

<b>TEST</b>	<b>RESULT UNITS</b>	<b>DETECTION LIMIT</b>	<b>DATE EXTRACTED</b>	<b>DATE ANALYZED</b>	<b>BY METHOD</b>
Base/Neutral & Acid Ext			08/20/94	08/22/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	7800			
Benzo(b)fluoranthene	ND ug/Kg	4800			
Benzo(k)flouranthene	ND ug/Kg	2500			
Benzo(a)pyrene	ND ug/Kg	2500			
Chrysene	ND ug/Kg	2500			
Dibenzo(a,h)anthracene	ND ug/Kg	2500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3690			
Pentachlorophenol	224,000j ug/Kg	3600			

<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>
S1 - Nitrobenzene-d5	29	23 120
S2 - 2-Fluorobiphenyl	40	30 115
S3 - 4-Terphenyl-d14	53	18 137
S4 - Phenol-d6	30	24 113
S5 - 2,4,6-Tribromophenol	52	19 122
S6 - 2-Fluorophenol	27	25 121

ND - Not Detected

*Not S. L.*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

**ORGANIC ANALYSIS DATA SHEET**Client Name **The Forrester Group**Project # **10150205**  
FID #

**328 Boonville  
P.O. Box 6406  
Springfield, MO 65806**

Site ID **Arkwood**

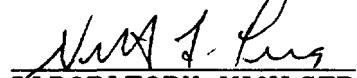
Date Arrived **08/20/94**  
ETC Order Number **9408525**

ETC Lab ID **9408525-05**  
Sample ID: **2509**

Matrix :**AQUEOUS**  
Sample Date :**08/19/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/20/94	08/22/94	DC 8270
Benzo(a)anthracene	ND ug/L	7.80			
Benzo(b)fluoranthene	ND ug/L	4.80			
Benzo(k)flouranthene	ND ug/L	2.50			
Benzo(a)pyrene	ND ug/L	2.50			
Chrysene	ND ug/L	2.50			
Dibenzo(a,h)anthracene	ND ug/L	2.50			
Indeno(1,2,3-cd)pyrene	ND ug/L	3.70			
Pentachlorophenol	ND ug/L	3.60			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	63	35	114		
S2 - 2-Fluorobiphenyl	70	43	116		
S3 - 4-Terphenyl-d14	102	33	141		
S4 - Phenol-d6	31	10	94		
S5 - 2,4,6-Tribromophenol	73	10	123		
S6 - 2-Fluorophenol	40	21	100		

ND - Not Detected

  
**LABORATORY MANAGER**

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # 10150205

FID #

328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Site ID **Arkwood**

**RECEIVED**  
 AUG 24 1994

Date Arrived 08/18/94

ETC Order Number 9408460

ETC Lab ID 9408460-01

Matrix :AQUEOUS

Sample ID: 2507

Sample Date :08/17/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/18/94	08/19/94	8270 DC
Benzo(a)anthracene	ND ug/L	8.58			
Benzo(b)fluoranthene	ND ug/L	5.28			
Benzo(k)flouranthene	ND ug/L	2.75			
Benzo(a)pyrene	ND ug/L	2.75			
Chrysene	ND ug/L	2.75			
Dibenzo(a,h)anthracene	ND ug/L	2.75			
Indeno(1,2,3-cd)pyrene	ND ug/L	4.07			
Pentachlorophenol	ND ug/L	3.96			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	74	35	114		
S2 - 2-Fluorobiphenyl	91	43	116		
S3 - 4-Terphenyl-d14	149 Q	33	141		
S4 - Phenol-d6	43	10	94		
S5 - 2,4,6-Tribromophenol	94	10	123		
S6 - 2-Fluorophenol	61	21	100		

ND - Not Detected

*W.M. Forrester*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

**ORGANIC ANALYSIS DATA SHEET**Client Name **The Forrester Group**Project # 10150205  
FID #328 Boonville  
P.O. Box 6406  
Springfield, MO 65806Site ID **Arkwood**Date Arrived 08/18/94  
ETC Order Number 9408460ETC Lab ID 9408460-02  
**Sample ID: 2681**Matrix :SOIL  
Sample Date :08/17/94

<b>TEST</b>	<b>RESULT UNITS</b>	<b>DETECTION LIMIT</b>	<b>DATE EXTRACTED</b>	<b>DATE ANALYZED</b>	<b>BY METHOD</b>
Base/Neutral & Acid Ext			08/18/94	08/19/94	8270 DC
Benzo(a)anthracene	5,180j ug/Kg	15600			
Benzo(b)fluoranthene	4,930j ug/Kg	9600			
Benzo(k)flouranthene	7,520j ug/Kg	5000			
Benzo(a)pyrene	2,530j ug/Kg	5000			
Chrysene	8,770 ug/Kg	5000			
Dibenzo(a,h)anthracene	ND ug/Kg	5000			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	7380			
Pentachlorophenol	181,000 ug/Kg	7200			

<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>
S1 - Nitrobenzene-d5	80	23 120
S2 - 2-Fluorobiphenyl	116 Q	30 115
S3 - 4-Terphenyl-d14	154 Q	18 137
S4 - Phenol-d6	79	24 113
S5 - 2,4,6-Tribromophenol	111	19 122
S6 - 2-Fluorophenol	79	25 121

ND - Not Detected

  
**LABORATORY MANAGER**

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 08/18/94  
 ETC Order Number 9408460

ETC Lab ID 9408460-03  
 Sample ID: 2679

Matrix :SOIL  
 Sample Date :08/17/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/18/94	08/19/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	15600			
Benzo(b)fluoranthene	ND ug/Kg	9600			
Benzo(k)flouranthene	ND ug/Kg	5000			
Benzo(a)pyrene	ND ug/Kg	5000			
Chrysene	3,340j ug/Kg	5000			
Dibenzo(a,h)anthracene	ND ug/Kg	5000			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	7380			
Pentachlorophenol	984,000j ug/Kg	7200			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	93	23	120		
S2 - 2-Fluorobiphenyl	131 Q	30	115		
S3 - 4-Terphenyl-d14	159 Q	18	137		
S4 - Phenol-d6	89	24	113		
S5 - 2,4,6-Tribromophenol	132 Q	19	122		
S6 - 2-Fluorophenol	88	25	121		

ND - Not Detected

V.M. L. Bus  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # **10150205**  
 FID #

Date Arrived **08/18/94**  
 ETC Order Number **9408460**

ETC Lab ID **9408460-04**

Sample ID: **2680**

Matrix :**SOIL**  
 Sample Date :**08/17/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/18/94	08/19/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	15600			
Benzo(b)fluoranthene	2,280j ug/Kg	9600			
Benzo(k)flouranthene	ND ug/Kg	5000			
Benzo(a)pyrene	ND ug/Kg	5000			
Chrysene	3,630j ug/Kg	5000			
Dibenzo(a,h)anthracene	ND ug/Kg	5000			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	7380			
Pentachlorophenol	1080000j ug/Kg	7200			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	89	23	120		
S2 - 2-Fluorobiphenyl	115	30	115		
S3 - 4-Terphenyl-d14	138 Q	18	137		
S4 - Phenol-d6	77	24	113		
S5 - 2,4,6-Tribromophenol	122	19	122		
S6 - 2-Fluorophenol	77	25	121		

ND - Not Detected

*Mark J. Key*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID **Arkwood**

Project # 10150205  
 FID #

Date Arrived 08/13/94  
 ETC Order Number 9408349

ETC Lab ID 9408349-01  
 Sample ID: 2669

Matrix :SOIL  
 Sample Date :08/12/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/15/94	08/15/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	2600			
Benzo(b)fluoranthene	ND ug/Kg	1600			
Benzo(k)flouranthene	ND ug/Kg	833			
Benzo(a)pyrene	ND ug/Kg	833			
Chrysene	ND ug/Kg	833			
Dibenzo(a,h)anthracene	ND ug/Kg	833			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1230			
Pentachlorophenol	134,000 ug/Kg	1200			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	72	23 120
S2 - 2-Fluorobiphenyl	74	30 115
S3 - 4-Terphenyl-d14	64	18 137
S4 - Phenol-d6	65	24 113
S5 - 2,4,6-Tribromophenol	90	19 122
S6 - 2-Fluorophenol	53	25 121

ND - Not Detected

*Mark J. Price*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Site ID **Arkwood**

Date Arrived 08/13/94  
 ETC Order Number 9408349

ETC Lab ID 9408349-02

Matrix :SOIL  
 Sample Date :08/12/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/15/94	08/15/94	DC
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	164,000 ug/Kg	1800			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	66	23 120
S2 - 2-Fluorobiphenyl	74	30 115
S3 - 4-Terphenyl-d14	70	18 137
S4 - Phenol-d6	61	24 113
S5 - 2,4,6-Tribromophenol	95	19 122
S6 - 2-Fluorophenol	50	25 121

ND - Not Detected

*Walt J. Fins*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 08/13/94  
 ETC Order Number 9408349

ETC Lab ID 9408349-03  
 Sample ID: 2671

Matrix :SOIL  
 Sample Date :08/12/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/15/94	08/15/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	147,000j ug/Kg	1800			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	80	23 120
S2 - 2-Fluorobiphenyl	83	30 115
S3 - 4-Terphenyl-d14	73	18 137
S4 - Phenol-d6	74	24 113
S5 - 2,4,6-Tribromophenol	100	19 122
S6 - 2-Fluorophenol	61	25 121

ND - Not Detected

*Mark J. Bus*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # 10150205  
 FID #

328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Site ID **Arkwood**

Date Arrived 08/13/94  
 ETC Order Number 9408349

ETC Lab ID 9408349-04  
 Sample ID: 2673

Matrix :SOIL  
 Sample Date :08/12/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/15/94	08/15/94	DC 8270
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	69,200ug/Kg	1800			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	78	23 120
S2 - 2-Fluorobiphenyl	81	30 115
S3 - 4-Terphenyl-d14	75	18 137
S4 - Phenol-d6	72	24 113
S5 - 2,4,6-Tribromophenol	89	19 122
S6 - 2-Fluorophenol	61	25 121

ND - Not Detected

*W.D. J. Kus*

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

**RECEIVED**  
 AUG 24 1994  
 ETC

Date Arrived 08/12/94  
 ETC Order Number 9408311

ETC Lab ID 9408311-01  
 Sample ID: 2665

Matrix :SOIL  
 Sample Date :08/11/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/12/94	08/14/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	62,900 ug/Kg	1800			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	74	23	120		
S2 - 2-Fluorobiphenyl	72	30	115		
S3 - 4-Terphenyl-d14	84	18	137		
S4 - Phenol-d6	67	24	113		
S5 - 2,4,6-Tribromophenol	72	19	122		
S6 - 2-Fluorophenol	61	25	121		

ND - Not Detected

*Mark J. Lewis*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID **Arkwood**

Project # 10150205  
 FID #

Date Arrived 08/12/94  
 ETC Order Number 9408311  
 ETC Lab ID 9408311-02  
 Sample ID: 2666

Matrix :SOIL  
 Sample Date :08/11/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/12/94	08/14/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	4,200 ug/Kg	1800			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	85	23	120		
S2 - 2-Fluorobiphenyl	87	30	115		
S3 - 4-Terphenyl-d14	105	18	137		
S4 - Phenol-d6	79	24	113		
S5 - 2,4,6-Tribromophenol	84	19	122		
S6 - 2-Fluorophenol	68	25	121		

ND - Not Detected

*N.M. J. Kue*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID **Arkwood**

Project # **10150205**  
 FID #

Date Arrived 08/12/94  
 ETC Order Number 9408311  
 ETC Lab ID 9408311-03  
 Sample ID: 2667

Matrix :SOIL  
 Sample Date :08/11/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/12/94	08/14/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	13,100 ug/Kg	1800			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	77	23	120		
S2 - 2-Fluorobiphenyl	78	30	115		
S3 - 4-Terphenyl-d14	98	18	137		
S4 - Phenol-d6	72	24	113		
S5 - 2,4,6-Tribromophenol	76	19	122		
S6 - 2-Fluorophenol	63	25	121		

ND - Not Detected

*Ned J. Lee*  
 LABORATORY MANAGER

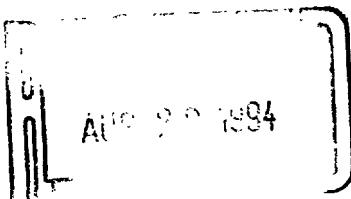
**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # 10150205  
 FID #

328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Site ID **Arkwood**



Date Arrived 08/10/94

ETC Order Number 9408221

ETC Lab ID 9408221-01

Matrix :SOIL  
 Sample Date :08/09/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
------	--------------	-----------------	----------------	---------------	-----------

Base/Neutral & Acid Ext

08/10/94 08/11/94 DC 8270

Benzo(a)anthracene	1,450j ug/Kg	3900
Benzo(b)fluoranthene	3,640 ug/Kg	2400
Benzo(k)flouranthene	1,260 ug/Kg	1250
Benzo(a)pyrene	ND ug/Kg	1250
Chrysene	3,530 ug/Kg	1250
Dibenzo(a,h)anthracene	ND ug/Kg	1250
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850
Pentachlorophenol	377,000j ug/Kg	1800

Surrogate Standard

	% Recovery	QC Limits
S1 - Nitrobenzene-d5	87	23 120
S2 - 2-Fluorobiphenyl	99	30 115
S3 - 4-Terphenyl-d14	109	18 137
S4 - Phenol-d6	73	24 113
S5 - 2,4,6-Tribromophenol	102	19 122
S6 - 2-Fluorophenol	67	25 121

ND - Not Detected

*Walt J. Lewis*  
 FARADATODV MANAGED

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # **10150205**  
 FID #

Date Arrived 08/10/94  
 ETC Order Number 9408221  
 ETC Lab ID 9408221-02  
 Sample ID: 2644

Matrix :SOIL  
 Sample Date :08/09/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/10/94	08/11/94	DC 8270
Benzo(a)anthracene	1,660j ug/Kg	3900			
Benzo(b)fluoranthene	2,980 ug/Kg	2400			
Benzo(k)flouranthene	2,090 ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	3,900 ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	327,000j ug/Kg	1800			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	64	23 120
S2 - 2-Fluorobiphenyl	82	30 115
S3 - 4-Terphenyl-d14	94	18 137
S4 - Phenol-d6	59	24 113
S5 - 2,4,6-Tribromophenol	88	19 122
S6 - 2-Fluorophenol	52	25 121

ND - Not Detected

*Vivian L. Lewis*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # 10150205  
 FID #

328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Site ID **Arkwood**

Date Arrived 08/10/94

ETC Order Number 9408221

ETC Lab ID 9408221-03

Sample ID: 2645

Matrix :SOIL  
 Sample Date :08/09/94

TEST	RESULT UNITS	DETECTION DATE		DATE EXTRACTED	DATE ANALYZED	BY METHOD
		LIMIT				
<b>Base/Neutral &amp; Acid Ext</b>						
Benzo(a)anthracene	1,420j ug/Kg	3900		08/10/94	08/11/94	DC
Benzo(b)fluoranthene	2,260j ug/Kg	2400				
Benzo(k)flouranthene	2,180j ug/Kg	1250				
Benzo(a)pyrene	ND ug/Kg	1250				
Chrysene	3,140 ug/Kg	1250				
Dibenzo(a,h)anthracene	ND ug/Kg	1250				
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850				
Pentachlorophenol	274,000j ug/Kg	1800				

<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC</b>	<b>Limits</b>
S1 - Nitrobenzene-d5	85	23	120
S2 - 2-Fluorobiphenyl	95	30	115
S3 - 4-Terphenyl-d14	107	18	137
S4 - Phenol-d6	71	24	113
S5 - 2,4,6-Tribromophenol	100	19	122
S6 - 2-Fluorophenol	68	25	121

ND - Not Detected

*W.L. Forrester*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **08/06/94**

ETC Order Number **9408176**

ETC Lab ID **9408176-01**

Matrix :SOIL  
 Sample Date :08/05/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/06/94	08/07/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	39000			
Benzo(b)fluoranthene	ND ug/Kg	24000			
Benzo(k)flouranthene	ND ug/Kg	12500			
Benzo(a)pyrene	ND ug/Kg	12500			
Chrysene	ND ug/Kg	12500			
Dibenzo(a,h)anthracene	ND ug/Kg	12500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	18500			
Pentachlorophenol	241,000 ug/Kg	18000			

Surrogate Standard	% Recovery	QC Limits	
S1 - Nitrobenzene-d5	72	23	120
S2 - 2-Fluorobiphenyl	92	30	115
S3 - 4-Terphenyl-d14	100	18	137
S4 - Phenol-d6	82	24	113
S5 - 2,4,6-Tribromophenol	36	19	122
S6 - 2-Fluorophenol	71	25	121

ND - Not Detected

*Mark J. Lewis*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **08/06/94**

ETC Order Number **9408176**

ETC Lab ID **9408176-02**

Sample ID: **2632**

Matrix :SOIL  
 Sample Date :08/05/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/06/94	08/07/94	RR
Benzo(a)anthracene	ND ug/Kg	39000			
Benzo(b)fluoranthene	ND ug/Kg	24000			
Benzo(k)flouranthene	ND ug/Kg	12500			
Benzo(a)pyrene	ND ug/Kg	12500			
Chrysene	ND ug/Kg	12500			
Dibenzo(a,h)anthracene	ND ug/Kg	12500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	18500			
Pentachlorophenol	275,000 ug/Kg	18000			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	88	23	120		
S2 - 2-Fluorobiphenyl	107	30	115		
S3 - 4-Terphenyl-d14	113	18	137		
S4 - Phenol-d6	95	24	113		
S5 - 2,4,6-Tribromophenol	31	19	122		
S6 - 2-Fluorophenol	89	25	121		

ND - Not Detected

*Mark J. Lewis*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **08/06/94**

ETC Order Number **9408176**

ETC Lab ID **9408176-03**

Sample ID: **2633**

Matrix :**SOIL**  
 Sample Date :**08/05/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/06/94	08/07/94	RR
Benzo(a)anthracene	ND ug/Kg	39000			
Benzo(b)fluoranthene	ND ug/Kg	24000			
Benzo(k)flouranthene	ND ug/Kg	12500			
Benzo(a)pyrene	ND ug/Kg	12500			
Chrysene	ND ug/Kg	12500			
Dibenzo(a,h)anthracene	ND ug/Kg	12500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	18500			
Pentachlorophenol	246,000 ug/Kg	18000			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	71	23	120		
S2 - 2-Fluorobiphenyl	111	30	115		
S3 - 4-Terphenyl-d14	113	18	137		
S4 - Phenol-d6	90	24	113		
S5 - 2,4,6-Tribromophenol	105	19	122		
S6 - 2-Fluorophenol	65	25	121		

ND - Not Detected

*V.M. J. Price*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **08/06/94**

ETC Order Number **9408176**

ETC Lab ID **9408176-04**

Sample ID: **2634**

Matrix :**SOIL**  
 Sample Date :**08/05/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/06/94	08/07/94	RR
Benzo(a)anthracene	ND ug/Kg	39000			
Benzo(b)fluoranthene	ND ug/Kg	24000			
Benzo(k)flouranthene	ND ug/Kg	12500			
Benzo(a)pyrene	ND ug/Kg	12500			
Chrysene	ND ug/Kg	12500			
Dibenzo(a,h)anthracene	ND ug/Kg	12500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	18500			
Pentachlorophenol	210,000 ug/Kg	18000			

<u>Surrogate Standard</u>	<u>% Recovery</u>	<u>QC Limits</u>	
S1 - Nitrobenzene-d5	81	23	120
S2 - 2-Fluorobiphenyl	97	30	115
S3 - 4-Terphenyl-d14	106	18	137
S4 - Phenol-d6	82	24	113
S5 - 2,4,6-Tribromophenol	32	19	122
S6 - 2-Fluorophenol	82	25	121

ND - Not Detected

*Mark J. Forrester*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**

Memphis, TN  
ORGANIC ANALYSIS DATA SHEET

Client Name **The Forrester Group**

Project # **10150205**

FID #

Site ID **Arkwood**

Date Arrived **08/06/94**

ETC Order Number **9408176**

ETC Lab ID **9408176-05**

**Matrix :SOIL**

**Sample ID: 2635**

**Sample Date :08/05/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/06/94	08/07/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	39000			
Benzo(b)fluoranthene	ND ug/Kg	24000			
Benzo(k)flouranthene	ND ug/Kg	12500			
Benzo(a)pyrene	ND ug/Kg	12500			
Chrysene	ND ug/Kg	12500			
Dibenzo(a,h)anthracene	ND ug/Kg	12500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	18500			
Pentachlorophenol	282,000 ug/Kg	18000			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	49	23	120		
S2 - 2-Fluorobiphenyl	67	30	115		
S3 - 4-Terphenyl-d14	77	18	137		
S4 - Phenol-d6	76	24	113		
S5 - 2,4,6-Tribromophenol	92	19	122		
S6 - 2-Fluorophenol	72	25	121		

ND - Not Detected

*Vicki J. Lewis*  
LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **08/06/94**

ETC Order Number **9408176**

ETC Lab ID **9408176-06**

Sample ID: **2636**

Matrix :**SOIL**  
 Sample Date :**08/05/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/06/94	08/07/94	RR
Benzo(a)anthracene	ND ug/Kg	39000			
Benzo(b)fluoranthene	ND ug/Kg	24000			
Benzo(k)flouranthene	ND ug/Kg	12500			
Benzo(a)pyrene	ND ug/Kg	12500			
Chrysene	ND ug/Kg	12500			
Dibenzo(a,h)anthracene	ND ug/Kg	12500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	18500			
Pentachlorophenol	407,000 ug/Kg	18000			

<u>Surrogate Standard</u>	<u>% Recovery</u>	<u>QC Limits</u>
S1 - Nitrobenzene-d5	73	23 120
S2 - 2-Fluorobiphenyl	102	30 115
S3 - 4-Terphenyl-d14	103	18 137
S4 - Phenol-d6	83	24 113
S5 - 2,4,6-Tribromophenol	107	19 122
S6 - 2-Fluorophenol	76	25 121

ND - Not Detected

*Kris J. Flug*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # 10150205  
 FID #

328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Site ID **Arkwood**

**RECEIVED**

AUG 22 1994

Date Arrived 08/17/94

ETC Order Number 9408413

ETC Lab ID 9408413-01

Matrix :SOIL

Sample ID: 2675

Sample Date :08/16/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/17/94	08/18/94	DC 8270
Benzo(a)anthracene	ND ug/Kg	7800			
Benzo(b)fluoranthene	ND ug/Kg	4800			
Benzo(k)flouranthene	ND ug/Kg	2500			
Benzo(a)pyrene	ND ug/Kg	2500			
Chrysene	ND ug/Kg	2500			
Dibenzo(a,h)anthracene	ND ug/Kg	2500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3690			
Pentachlorophenol	82,000 ug/Kg	3600			

<u>Surrogate Standard</u>	% Recovery	QC Limits
S1 - Nitrobenzene-d5	37	23 120
S2 - 2-Fluorobiphenyl	46	30 115
S3 - 4-Terphenyl-d14	47	18 137
S4 - Phenol-d6	29	24 113
S5 - 2,4,6-Tribromophenol	45	19 122
S6 - 2-Fluorophenol	33	25 121

ND - Not Detected

not 1 kg

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # 10150205  
 FID #

328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Site ID **Arkwood**

Date Arrived 08/17/94  
 ETC Order Number 9408413

ETC Lab ID 9408413-02

Matrix :SOIL  
 Sample Date :08/16/94

Sample ID: 2676

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/17/94	08/18/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	7800			
Benzo(b)fluoranthene	ND ug/Kg	4800			
Benzo(k)flouranthene	ND ug/Kg	2500			
Benzo(a)pyrene	ND ug/Kg	2500			
Chrysene	ND ug/Kg	2500			
Dibenzo(a,h)anthracene	ND ug/Kg	2500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3690			
Pentachlorophenol	51,600 ug/Kg	3600			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	15 Q	23	120		
S2 - 2-Fluorobiphenyl	28 Q	30	115		
S3 - 4-Terphenyl-d14	41	18	137		
S4 - Phenol-d6	17 Q	24	113		
S5 - 2,4,6-Tribromophenol	35	19	122		
S6 - 2-Fluorophenol	12 Q	25	121		

ND - Not Detected

*Mel S. Jr.*

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 08/17/94  
 ETC Order Number 9408413

ETC Lab ID 9408413-03  
 Sample ID: 2677

Matrix :SOIL  
 Sample Date :08/16/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/17/94	08/18/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	7800			
Benzo(b)fluoranthene	ND ug/Kg	4800			
Benzo(k)flouranthene	ND ug/Kg	2500			
Benzo(a)pyrene	ND ug/Kg	2500			
Chrysene	ND ug/Kg	2500			
Dibenzo(a,h)anthracene	ND ug/Kg	2500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3690			
Pentachlorophenol	109,000 ug/Kg	3600			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	20 Q	23	120		
S2 - 2-Fluorobiphenyl	42	30	115		
S3 - 4-Terphenyl-d14	59	18	137		
S4 - Phenol-d6	22 Q	24	113		
S5 - 2,4,6-Tribromophenol	49	19	122		
S6 - 2-Fluorophenol	14 Q	25	121		

ND - Not Detected

*Mark J. King*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # **10150205**  
 FID #

Date Arrived **08/17/94**  
 ETC Order Number **9408413**

ETC Lab ID **9408413-04**  
 Sample ID: **2678**

Matrix :**SOIL**  
 Sample Date :**08/16/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/17/94	08/18/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	7800			
Benzo(b)fluoranthene	ND ug/Kg	4800			
Benzo(k)flouranthene	ND ug/Kg	2500			
Benzo(a)pyrene	ND ug/Kg	2500			
Chrysene	ND ug/Kg	2500			
Dibenzo(a,h)anthracene	ND ug/Kg	2500			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3690			
Pentachlorophenol	75,800 ug/Kg	3600			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	27	23	120		
S2 - 2-Fluorobiphenyl	37	30	115		
S3 - 4-Terphenyl-d14	56	18	137		
S4 - Phenol-d6	25	24	113		
S5 - 2,4,6-Tribromophenol	45	19	122		
S6 - 2-Fluorophenol	24 Q	25	121		

ND - Not Detected

*Mark J. Forrester*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 08/17/94  
 ETC Order Number 9408413

ETC Lab ID 9408413-05  
 Sample ID: 2674

Matrix :SOIL  
 Sample Date :08/15/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/17/94	08/18/94	DC 8270
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	127,000j ug/Kg	1800			

Surrogate Standard	% Recovery	OC Limits
S1 - Nitrobenzene-d5	35	23 120
S2 - 2-Fluorobiphenyl	48	30 115
S3 - 4-Terphenyl-d14	58	18 137
S4 - Phenol-d6	34	24 113
S5 - 2,4,6-Tribromophenol	52	19 122
S6 - 2-Fluorophenol	32	25 121

ND - Not Detected

*Mark J. Lee,*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**

2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750

**ORGANIC ANALYSIS DATA SHEET**

**Client Name** The Forrester Group

**Project #** 10150205

**FID #**

328 Boonville  
P.O. Box 6406  
Springfield, MO 65806

**Site ID** Arkwood

**RECEIVED**  
AUG 19 1994

Date Arrived 08/11/94

ETC Order Number 9408264

ETC Lab ID 9408264-01

Sample ID: 2649

**Matrix :SOIL**

Sample Date :08/10/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/11/94	08/11/94	DC 8270
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	59,000 ug/Kg	1800			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	80	23 120
S2 - 2-Fluorobiphenyl	85	30 115
S3 - 4-Terphenyl-d14	89	18 137
S4 - Phenol-d6	73	24 113
S5 - 2,4,6-Tribromophenol	86	19 122
S6 - 2-Fluorophenol	68	25 121

ND - Not Detected

*Mark J. Liss*  
LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

**Client Name** The Forrester Group  
**Site ID** Arkwood  
328 Boonville  
P.O. Box 6406  
Springfield, MO 65806

Project # 10150205  
FID #

Date Arrived 08/11/94  
ETC Order Number 9408264  
ETC Lab ID 9408264-02  
Sample ID: 2650

Matrix :SOIL  
Sample Date :08/10/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	DATE BY METHOD
Base/Neutral & Acid Ext			08/11/94	08/11/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	56.700 ug/Kg	1800			

<u>Surrogate Standard</u>	<u>% Recovery</u>	<u>QC Limits</u>
S1 - Nitrobenzene-d5	37	23
S2 - 2-Fluorobiphenyl	46	30
S3 - 4-Terphenyl-d14	50	18
S4 - Phenol-d6	38	24
S5 - 2,4,6-Tribromophenol	49	19
S6 - 2-Fluorophenol	35	25

ND - Not Detected

W. J. Lee  
LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name    The Forrester Group  
 Site ID         Arkwood  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 08/11/94  
 ETC Order Number 9408264  
 ETC Lab ID 9408264-03  
 Sample ID: 2651

Matrix :SOIL  
 Sample Date :08/10/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/11/94	08/12/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	55,900 ug/Kg	1800			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	49	23 120
S2 - 2-Fluorobiphenyl	67	30 115
S3 - 4-Terphenyl-d14	84	18 137
S4 - Phenol-d6	50	24 113
S5 - 2,4,6-Tribromophenol	72	19 122
S6 - 2-Fluorophenol	45	25 121

ND - Not Detected

*Nicole L. Lewis*

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name: **The Forrester Group**

Project # 10150205  
 FID #

328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Site ID Arkwood

Date Arrived 08/11/94  
 ETC Order Number 9408264  
 ETC Lab ID 9408264-04  
 Sample ID: 2652

Matrix :SOIL  
 Sample Date :08/10/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/11/94	08/12/94	DC 8270
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	9,650 ug/Kg	1800			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	62	23	120		
S2 - 2-Fluorobiphenyl	71	30	115		
S3 - 4-Terphenyl-d14	96	18	137		
S4 - Phenol-d6	64	24	113		
S5 - 2,4,6-Tribromophenol	79	19	122		
S6 - 2-Fluorophenol	59	25	121		

ND - Not Detected

*N.M. J. Lewis*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # 10150205  
 FID #

Date Arrived 08/11/94  
 ETC Order Number 9408264  
 ETC Lab ID 9408264-05  
 Sample ID: 2653

Matrix :SOIL  
 Sample Date :08/10/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/11/94	08/12/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	14,700 ug/Kg	1800			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	45	23	120		
S2 - 2-Fluorobiphenyl	61	30	115		
S3 - 4-Terphenyl-d14	70	18	137		
S4 - Phenol-d6	52	24	113		
S5 - 2,4,6-Tribromophenol	61	19	122		
S6 - 2-Fluorophenol	43	25	121		

ND - Not Detected

*Mark J. Lewis*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Site ID **Arkwood**

Date Arrived **08/11/94**  
 ETC Order Number **9408264**  
 ETC Lab ID **9408264-06**  
 Sample ID: **2654**

Matrix :SOIL  
 Sample Date :**08/10/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/11/94	08/12/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	11,700 ug/Kg	1800			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	61	23	120		
S2 - 2-Fluorobiphenyl	69	30	115		
S3 - 4-Terphenyl-d14	82	18	137		
S4 - Phenol-d6	68	24	113		
S5 - 2,4,6-Tribromophenol	75	19	122		
S6 - 2-Fluorophenol	60	25	121		

ND - Not Detected

Mark J. Fries  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name	The Forrester Group
Site ID	328 Boonville P.O. Box 6406 Springfield, MO 65806 Arkwood

Project # 10150205  
FID #

Date Arrived 08/11/94  
ETC Order Number 9408264  
ETC Lab ID 9408264-07  
Sample ID: 2664

Matrix :SOIL  
Sample Date :08/10/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	DATE BY METHOD
Base/Neutral & Acid Ext			08/11/94	08/12/94	8270
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	148,000j ug/Kg	1800			

<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>OC Limits</b>
S1 - Nitrobenzene-d5	39	23 120
S2 - 2-Fluorobiphenyl	61	30 115
S3 - 4-Terphenyl-d14	83	18 137
S4 - Phenol-d6	51	24 113
S5 - 2,4,6-Tribromophenol	84	19 122
S6 - 2-Fluorophenol	43	25 121

ND - Not Detected

Walt S. Lee  
LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # **10150205**  
 FID #

Date Arrived 08/11/94  
 ETC Order Number 9408264  
 ETC Lab ID 9408264-08  
 Sample ID: 2657

Matrix :SOIL  
 Sample Date :08/10/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/11/94	08/12/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	18,000 ug/Kg	1800			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	48	23	120		
S2 - 2-Fluorobiphenyl	65	30	115		
S3 - 4-Terphenyl-d14	87	18	137		
S4 - Phenol-d6	61	24	113		
S5 - 2,4,6-Tribromophenol	75	19	122		
S6 - 2-Fluorophenol	50	25	121		

ND - Not Detected

Wes J. Bry  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group** Project # **10150205**  
 FID #  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Site ID **Arkwood**

Date Arrived 08/11/94  
 ETC Order Number 9408264  
 ETC Lab ID 9408264-09  
**Sample ID: 2656**

Matrix :SOIL  
 Sample Date :08/10/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	DATE BY METHOD
Base/Neutral & Acid Ext			08/11/94	08/12/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	11,900 ug/Kg	1800			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	49	23	120		
S2 - 2-Fluorobiphenyl	70	30	115		
S3 - 4-Terphenyl-d14	82	18	137		
S4 - Phenol-d6	59	24	113		
S5 - 2,4,6-Tribromophenol	74	19	122		
S6 - 2-Fluorophenol	47	25	121		

ND - Not Detected

*Mark J. Lewis*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # **10150205**  
 FID #

Date Arrived 08/11/94  
 ETC Order Number 9408264  
 ETC Lab ID 9408264-10  
 Sample ID: 2655

Matrix :SOIL  
 Sample Date :08/10/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/11/94	08/12/94	DC 8270
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	16,700 ug/Kg	1800			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	53	23	120		
S2 - 2-Fluorobiphenyl	65	30	115		
S3 - 4-Terphenyl-d14	83	18	137		
S4 - Phenol-d6	60	24	113		
S5 - 2,4,6-Tribromophenol	74	19	122		
S6 - 2-Fluorophenol	52	25	121		

ND - Not Detected

*Mark J. Fug*  
 LABORATORY MANAGER

ETC, Inc.

# CHAIN OF CUSTODY RECORD

Environmental Testing & Consulting, Inc.  
2924 Walnut Grove Rd.  
Memphis, TN 38111  
(901)327-2750 fax (901)327-6334

CLIENT NAME <i>The Forrester Group</i>		PHONE #: (617) 864-0444	FAX RESULTS	ANALYSES (LIST BELOW)						
		FAX #: (617) 864-6445	RUSH							
SITE <i>Arkwood</i>		FID#	REG. TURN.							
		PO #	ICE							
PROJECT # <i>10150205</i>		REMARKS					<i>AF 8270</i>	<i>PP 8270</i>	<i>by</i>	
# of cont.	SAMPLE ID NUMBER	LOCATION/ DEPTH	SAMPLE DATE	SAMPLE TIME	SAMPLE TYPE		MATRIX			
	COMP	GRAB	AQUEOUS	SOIL	OTHER					
1	2649	B6-1-08-10	8/10/94	930	X			X	X	
1	2650	B6-2-08-10	8/10/94	930	X			X	X	
1	2651	B6-3-08-10	8/10/94	930	X			X	X	
1	2652	BV2-1-08-10	8/10/94	1300	X			X	X	
1	2653	V2-2-08-10	8/10/94	1300	X			X	X	
1	2654	V2-3-08-10	8/10/94	1300	X			X	X	
1	2664	C4-08-10	8/10/94	1530	X			X	X	
1	2657	V3-1-08-10	8/10/94	1400	X			X	X	
1	2656	V3-2-08-10	8/10/94	1400	X			X	X	
1	2655	V3-3-08-10	8/10/94	1400	X			X	X	
1. RELINQUISHED BY (sign) <i>Mark Matthewy</i>		DATE 8/10/94	TIME 1800	RECEIVED BY (sign) <i>For Ex (Chain of custody in cooler)</i>					DATE	TIME
2. RELINQUISHED BY (sign)		DATE	TIME	RECEIVED BY (sign)					DATE	TIME
3. RELINQUISHED BY (print) (sign)		DATE	TIME	RECEIVED BY LAB (print) <i>George H. Dunlop Jr</i> <i>George H. Dunlop Jr</i>					DATE 8/11/94	TIME 0825

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name : **The Forrester Group**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806  
 Site ID : **Arkwood**

Project # 10150205  
 FID # **DFAFFPFP**

AUG 15 1994

Date Arrived 08/09/94  
 ETC Order Number 9408198

ETC Lab ID 9408198-01  
 Sample ID: 2637

Matrix :SOIL  
 Sample Date :08/08/94

TEST	RESULT UNITS	DETECTION DATE		DATE EXTRACTED	DATE ANALYZED	BY METHOD
		LIMIT	ANALYZED			
<b>Base/Neutral &amp; Acid Ext</b>						
Benzo(a)anthracene	ND ug/Kg	3900		08/09/94	08/10/94	DC
Benzo(b)fluoranthene	1,570 ug/Kg	2400				
Benzo(k)flouranthene	ND ug/Kg	1250				
Benzo(a)pyrene	ND ug/Kg	1250				
Chrysene	ND ug/Kg	1250				
Dibenzo(a,h)anthracene	ND ug/Kg	1250				
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850				
Pentachlorophenol	13,700 ug/Kg	1800				

<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>	
S1 - Nitrobenzene-d5	51	23	120
S2 - 2-Fluorobiphenyl	60	30	115
S3 - 4-Terphenyl-d14	80	18	137
S4 - Phenol-d6	53	24	113
S5 - 2,4,6-Tribromophenol	61	19	122
S6 - 2-Fluorophenol	44	25	121

ND - Not Detected

*V.L. Lewis*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**  
 Site ID **Arkwood**  
 328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Project # **10150205**  
 FID #

Date Arrived 08/09/94  
 ETC Order Number 9408198  
 ETC Lab ID 9408198-02  
 Sample ID: 2638

Matrix :SOIL  
 Sample Date :08/08/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/09/94	08/10/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	1,440j ug/Kg	1800			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	60	23	120		
S2 - 2-Fluorobiphenyl	64	30	115		
S3 - 4-Terphenyl-d14	103	18	137		
S4 - Phenol-d6	62	24	113		
S5 - 2,4,6-Tribromophenol	72	19	122		
S6 - 2-Fluorophenol	56	25	121		

ND - Not Detected

*Mark J. Kuykendall*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 2924 Walnut Grove Road - Memphis, TN 38111 - (901)327-2750  
**ORGANIC ANALYSIS DATA SHEET**

Client Name : The Forrester Group

Project # 10150205  
 FID #

328 Boonville  
 P.O. Box 6406  
 Springfield, MO 65806

Site ID Arkwood

Date Arrived 08/09/94

ETC Order Number 9408198

ETC Lab ID 9408198-03

Sample ID: 2639

Matrix :SOIL

Sample Date :08/08/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/09/94	08/10/94	8270 DC
Benzo(a)anthracene	ND ug/Kg	3120			
Benzo(b)fluoranthene	ND ug/Kg	1920			
Benzo(k)flouranthene	ND ug/Kg	1000			
Benzo(a)pyrene	ND ug/Kg	1000			
Chrysene	ND ug/Kg	1000			
Dibenzo(a,h)anthracene	ND ug/Kg	1000			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1480			
Pentachlorophenol	16,500 ug/Kg	1440			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	54	23	120		
S2 - 2-Fluorobiphenyl	59	30	115		
S3 - 4-Terphenyl-d14	88	18	137		
S4 - Phenol-d6	54	24	113		
S5 - 2,4,6-Tribromophenol	70	19	122		
S6 - 2-Fluorophenol	48	25	121		

ND - Not Detected

*M.J.P.*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**

Site ID **Arkwood**

**REPORT FID #**

Date Arrived **08/05/94**

**NO. 34103**

ETC Order Number **9408133**

ETC Lab ID **9408133-01**

**Matrix :SOIL**

Sample ID: **C-1-08-03**

**Sample Date :08/03/94**

<b>TEST</b>	<b>RESULT UNITS</b>	<b>DETECTION LIMIT</b>	<b>DATE EXTRACTED</b>	<b>DATE ANALYZED</b>	<b>BY METHOD</b>
Base/Neutral & Acid Ext			08/05/94	08/07/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	127,000j ug/Kg	1800			

<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>
S1 - Nitrobenzene-d5	59	23 120
S2 - 2-Fluorobiphenyl	63	30 115
S3 - 4-Terphenyl-d14	63	18 137
S4 - Phenol-d6	59	24 113
S5 - 2,4,6-Tribromophenol	69	19 122
S6 - 2-Fluorophenol	52	25 121

ND - Not Detected

*W.H. Forrester*  
 ENVIRONMENTAL MANAGEMENT

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name : **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **08/05/94**

ETC Order Number **9408133**

ETC Lab ID **9408133-02**

Matrix :**SOIL**

Sample ID: **C-2-08-04**

Sample Date :**08/04/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/05/94	08/07/94	RR
Benzo(a)anthracene	ND ug/Kg	3900			
Benzo(b)fluoranthene	ND ug/Kg	2400			
Benzo(k)flouranthene	ND ug/Kg	1250			
Benzo(a)pyrene	ND ug/Kg	1250			
Chrysene	ND ug/Kg	1250			
Dibenzo(a,h)anthracene	ND ug/Kg	1250			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850			
Pentachlorophenol	16,800 ug/Kg	1800			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	74	23	120		
S2 - 2-Fluorobiphenyl	75	30	115		
S3 - 4-Terphenyl-d14	88	18	137		
S4 - Phenol-d6	73	24	113		
S5 - 2,4,6-Tribromophenol	74	19	122		
S6 - 2-Fluorophenol	65	25	121		

ND - Not Detected

*W.M. J. Luns*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name : **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **08/05/94**

ETC Order Number **9408133**

ETC Lab ID **9408133-03**

Matrix :**SOIL**

Sample ID: **C-3-08-04**

Sample Date :**08/04/94**

TEST	RESULT UNITS	DETECTION DATE	DATE	ANALYZED BY METHOD
		LIMIT	EXTRACTED	
Base/Neutral & Acid Ext				8270
Benzo(a)anthracene	ND ug/Kg	3900	08/05/94	08/07/94 RR
Benzo(b)fluoranthene	ND ug/Kg	2400		
Benzo(k)flouranthene	ND ug/Kg	1250		
Benzo(a)pyrene	ND ug/Kg	1250		
Chrysene	ND ug/Kg	1250		
Dibenzo(a,h)anthracene	ND ug/Kg	1250		
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850		
Pentachlorophenol	117,000j ug/Kg	1800		
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>		
S1 - Nitrobenzene-d5	63	23 120		
S2 - 2-Fluorobiphenyl	69	30 115		
S3 - 4-Terphenyl-d14	70	18 137		
S4 - Phenol-d6	62	24 113		
S5 - 2,4,6-Tribromophenol	74	19 122		
S6 - 2-Fluorophenol	56	25 121		

ND - Not Detected

*Mark J. Lue*

LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **08/05/94**

ETC Order Number **9408133**

ETC Lab ID **9408133-04**

Matrix :**SOIL**  
 Sample Date :**07/28/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
------	--------------	-----------------	----------------	---------------	-----------

<b>Base/Neutral &amp; Acid Ext</b>			08/05/94	08/06/94	RR	8270
Benzo(a)anthracene	ND ug/Kg	3900				
Benzo(b)fluoranthene	2,660 ug/Kg	2400				
Benzo(k)flouranthene	1,240j ug/Kg	1250				
Benzo(a)pyrene	1,810 ug/Kg	1250				
Chrysene	3,320 ug/Kg	1250				
Dibenzo(a,h)anthracene	ND ug/Kg	1250				
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1850				
Pentachlorophenol	193,000j ug/Kg	1800				

<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>	
S1 - Nitrobenzene-d5	69	23	120
S2 - 2-Fluorobiphenyl	74	30	115
S3 - 4-Terphenyl-d14	63	18	137
S4 - Phenol-d6	66	24	113
S5 - 2,4,6-Tribromophenol	73	19	122
S6 - 2-Fluorophenol	60	25	121

ND - Not Detected

*Mark J. Lue*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

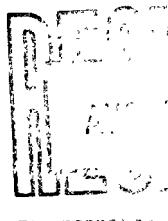
Project # **10150205**

Site ID **Arkwood**

FID #

Date Arrived **08/02/94**

ETC Order Number **9408028**



**ETC Lab ID 9408028-01**

**Matrix :SOIL**

**Sample ID: 2613**

**Sample Date :07/28/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			08/02/94	08/03/94	8270 DC
Benzo(a)anthracene	1,580j ug/Kg	1650			
Benzo(b)fluoranthene	3,170 ug/Kg	1650			
Benzo(k)fluoranthene	1,190j ug/Kg	1650			
Benzo(a)pyrene	ND ug/Kg	1650			
Chrysene	2,820 ug/Kg	1650			
Dibenzo(a,h)anthracene	ND ug/Kg	1650			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1650			
Pentachlorophenol	152,000 ug/Kg	1650			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	117	23	120		
S2 - 2-Fluorobiphenyl	150 Q	30	115		
S3 - 4-Terphenyl-d14	168 Q	18	137		
S4 - Phenol-d6	119 Q	24	113		
S5 - 2,4,6-Tribromophenol	143 Q	19	122		
S6 - 2-Fluorophenol	100	25	121		

ND - Not Detected

*Ned J. Lee*  
 LABORATORY MANAGER

# ENVIRONMENTAL TESTING & CONSULTING, INC.

Memphis, TN

## ORGANIC ANALYSIS DATA SHEET

Client Name **The Forrester Group**

Project # **10150205**

FID #

Site ID **Arkwood**

Date Arrived **08/02/94**

ETC Order Number **9408028**

ETC Lab ID **9408028-02**

**Matrix :SOIL**

**Sample ID: 2614**

**Sample Date :07/28/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext					8270
Benzo(a)anthracene	1,480j ug/Kg	1650	08/02/94	08/03/94	DC
Benzo(b)fluoranthene	2,730 ug/Kg	1650			
Benzo(k)fluoranthene	1,220j ug/Kg	1650			
Benzo(a)pyrene	ND ug/Kg	1650			
Chrysene	2,550 ug/Kg	1650			
Dibenzo(a,h)anthracene	ND ug/Kg	1650			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1650			
Pentachlorophenol	114,000 ug/Kg	1650			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	98	23	120		
S2 - 2-Fluorobiphenyl	122 Q	30	115		
S3 - 4-Terphenyl-d14	145 Q	18	137		
S4 - Phenol-d6	101	24	113		
S5 - 2,4,6-Tribromophenol	127 Q	19	122		
S6 - 2-Fluorophenol	90	25	121		

ND - Not Detected

*W.M. T. Jr.*  
LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/29/94**

**RECEIVED**

**AUG 04 1994**

ETC Order Number **9407680**

Matrix :**SOIL**  
 Sample Date :**07/28/94**

ETC Lab ID **9407680-01**

Sample ID: **2606**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/29/94	07/30/94	RR
Benzo(a)anthracene	1,380j ug/Kg	3400			
Benzo(b)fluoranthene	1,400j ug/Kg	3400			
Benzo(k)fluoranthene	ND ug/Kg	3400			
Benzo(a)pyrene	1,280j ug/Kg	3400			
Chrysene	2,930j ug/Kg	3400			
Dibenzo(a,h)anthracene	ND ug/Kg	3400			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3400			
Pentachlorophenol	314,000 ug/Kg	3400			

Surrogate Standard	% Recovery	QC Limits	
S1 - Nitrobenzene-d5	44	23	120
S2 - 2-Fluorobiphenyl	67	30	115
S3 - 4-Terphenyl-d14	72	18	137
S4 - Phenol-d6	66	24	113
S5 - 2,4,6-Tribromophenol	79	19	122
S6 - 2-Fluorophenol	53	25	121

ND - Not Detected

1/11/94

## ENVIRONMENTAL TESTING &amp; CONSULTING, INC.

Memphis, TN

## ORGANIC ANALYSIS DATA SHEET

Client Name The Forrester Group

Project # 10150205  
FID #

Site ID Arkwood

Date Arrived 07/29/94

ETC Order Number 9407680

ETC Lab ID 9407680-02

Matrix :SOIL

Sample ID: 2607 4 :

Sample Date :07/28/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/29/94	07/30/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	3960			
Benzo(b)fluoranthene	2,330j ug/Kg	3960			
Benzo(k)fluoranthene	1,120j ug/Kg	3960			
Benzo(a)pyrene	1,610j ug/Kg	3960			
Chrysene	2,410j ug/Kg	3960			
Dibenzo(a,h)anthracene	ND ug/Kg	3960			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3960			
Pentachlorophenol	319,000 ug/Kg	3960			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	40	23	120		
S2 - 2-Fluorobiphenyl	62	30	115		
S3 - 4-Terphenyl-d14	70	18	137		
S4 - Phenol-d6	61	24	113		
S5 - 2,4,6-Tribromophenol	77	19	122		
S6 - 2-Fluorophenol	49	25	121		

ND - Not Detected

  
LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group** Project # **10150205**  
 Site ID **Arkwood** FID #  
 Date Arrived **07/29/94**  
 ETC Order Number **9407680**  
 ETC Lab ID **9407680-03** Matrix :SOIL  
 Sample ID: **2608** Sample Date :**07/28/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/29/94	07/30/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	3960			
Benzo(b)fluoranthene	1,230j ug/Kg	3960			
Benzo(k)fluoranthene	ND ug/Kg	3960			
Benzo(a)pyrene	ND ug/Kg	3960			
Chrysene	1,760j ug/Kg	3960			
Dibenzo(a,h)anthracene	ND ug/Kg	3960			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3960			
Pentachlorophenol	170,000 ug/Kg	3960			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	42	23	120		
S2 - 2-Fluorobiphenyl	54	30	115		
S3 - 4-Terphenyl-d14	76	18	137		
S4 - Phenol-d6	61	24	113		
S5 - 2,4,6-Tribromophenol	84	19	122		
S6 - 2-Fluorophenol	54	25	121		

ND - Not Detected

*WMA J. Goss*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/29/94**

ETC Order Number **9407680**

ETC Lab ID **9407680-04**

Sample ID: **2505**

Matrix :**AQUEOUS**  
 Sample Date :**07/28/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/29/94	07/30/94	8270 RR
Benzo(a)anthracene	ND ug/L	14.0			
Benzo(b)fluoranthene	ND ug/L	14.0			
Benzo(k)fluoranthene	ND ug/L	14.0			
Benzo(a)pyrene	ND ug/L	14.0			
Chrysene	ND ug/L	14.0			
Dibenzo(a,h)anthracene	ND ug/L	14.0			
Indeno(1,2,3-cd)pyrene	ND ug/L	14.0			
Pentachlorophenol	ND ug/L	14.0			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	64	35	114		
S2 - 2-Fluorobiphenyl	69	43	116		
S3 - 4-Terphenyl-d14	68	33	141		
S4 - Phenol-d6	40	10	94		
S5 - 2,4,6-Tribromophenol	79	10	123		
S6 - 2-Fluorophenol	58	21	100		

ND - Not Detected

*W.A. R.*  
 LABORATORY MANAGER

ETC, Inc.

# CHAIN OF CUSTODY RECORD

**Environmental Testing & Consulting, Inc.**  
2924 Walnut Grove Rd.  
Memphis, TN 38111  
(901)327-2750 fax (901)327-6334

CLIENT NAME <i>The Forrester Group</i>		PHONE #: 417-864-6444	FAX RESULTS	ANALYSES (LIST BELOW)			
SITE <i>Arkwood</i>		FAX #: 417-864-6445	RUSH				
PROJECT # 10150205		FID#	REG. TURN.				
SAMPLER (sign) <i>Rebecca L. Zeliffon</i>		PO #	ICE				
		REMARKS					
# of cont.	SAMPLE ID NUMBER	LOCATION/DEPTH	SAMPLE DATE	SAMPLE TIME	SAMPLE TYPE	MATRIX	<i>PCP → RNA by 8/27/94</i>
			COMP	GRAB	AQUEOUS	SOIL	
+ B9-1-07-28						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1 2606	B9-1-07-28	7/28/94	1600	✓		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1 2607	B9-2-07-28	7/28/94	1600	✓		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1 2608	B9-3-07-28	7/28/94	1600	✓		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1 2505	ERT2894	7/28/94	1600	✓	✓		<input checked="" type="checkbox"/>
1. RELINQUISHED BY (sign) <i>Rebecca L. Zeliffon</i>	DATE 7/28/94	TIME 1900	RECEIVED BY (sign) FED EX (Chain of custody in cooler)	DATE 7/28/94	TIME 1900		
2. RELINQUISHED BY (sign)	DATE	TIME	RECEIVED BY (sign)	DATE	TIME		
3. RELINQUISHED BY (print)	DATE	TIME	RECEIVED BY LAB (print)	DATE 7/29/94	TIME 0830		
			(sign) <i>S. Hermann</i>				

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/27/94**

ETC Order Number **9407608**

ETC Lab ID **9407608-01**

Sample ID: **2582**

**RECEIVED**

**AUG 04 1994**

**LABORATORY**

**Matrix :SOIL**  
**Sample Date :07/15/94**

TEST	RESULT UNITS	DETECTION	DATE	DATE	BY METHOD
		LIMIT	EXTRACTED	ANALYZED	
<b>Base/Neutral &amp; Acid Ext</b>					
Benzo(a)anthracene	ND ug/Kg	33000		07/28/94	RR
Benzo(b)fluoranthene	ND ug/Kg	33000		07/28/94	
Benzo(k)fluoranthene	ND ug/Kg	33000			
Benzo(a)pyrene	ND ug/Kg	33000			
Chrysene	ND ug/Kg	33000			
Dibenzo(a,h)anthracene	ND ug/Kg	33000			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	33000			
Pentachlorophenol	272,000 ug/Kg	33000			
<b>Surrogate Standard</b>					
S1 - Nitrobenzene-d5	Q	23	120		
S2 - 2-Fluorobiphenyl	Q	30	115		
S3 - 4-Terphenyl-d14	Q	18	137		
S4 - Phenol-d6	Q	24	113		
S5 - 2,4,6-Tribromophenol	Q	19	122		
S6 - 2-Fluorophenol	Q	25	121		

ND - Not Detected

Mark J. Price  
**LABORATORY MANAGER**

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/27/94**

ETC Order Number **9407608**

ETC Lab ID **9407608-02**

Sample ID: **2583**

Matrix :**SOIL**  
 Sample Date :**07/22/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/28/94	07/29/94	RR
Benzo(a)anthracene	ND ug/Kg	3300			
Benzo(b)fluoranthene	ND ug/Kg	3300			
Benzo(k)fluoranthene	ND ug/Kg	3300			
Benzo(a)pyrene	ND ug/Kg	3300			
Chrysene	ND ug/Kg	3300			
Dibenzo(a,h)anthracene	ND ug/Kg	3300			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3300			
Pentachlorophenol	24,800 ug/Kg	3300			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	22 Q	23	120		
S2 - 2-Fluorobiphenyl	37	30	115		
S3 - 4-Terphenyl-d14	48	18	137		
S4 - Phenol-d6	28	24	113		
S5 - 2,4,6-Tribromophenol	37	19	122		
S6 - 2-Fluorophenol	50	25	121		

ND - Not Detected

Mark J. Pusack  
 LABORATORY MANAGER

## ENVIRONMENTAL TESTING &amp; CONSULTING, INC.

Memphis, TN

## ORGANIC ANALYSIS DATA SHEET

Client Name. The Forrester Group

Project # 10150205

FID #

Site ID Arkwood

Date Arrived 07/27/94

ETC Order Number 9407608

ETC Lab ID 9407608-03

Matrix :SOIL

Sample ID: 2584

Sample Date :07/22/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/28/94	07/28/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	33000			
Benzo(b)fluoranthene	ND ug/Kg	33000			
Benzo(k)fluoranthene	ND ug/Kg	33000			
Benzo(a)pyrene	ND ug/Kg	33000			
Chrysene	ND ug/Kg	33000			
Dibenzo(a,h)anthracene	ND ug/Kg	33000			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	33000			
Pentachlorophenol	544,000 ug/Kg	33000			
<u>Surrogate Standard</u>	<u>% Recovery</u>	<u>QC Limits</u>			
S1 - Nitrobenzene-d5	Q	23	120		
S2 - 2-Fluorobiphenyl	Q	30	115		
S3 - 4-Terphenyl-d14	Q	18	137		
S4 - Phenol-d6	Q	24	113		
S5 - 2,4,6-Tribromophenol	Q	19	122		
S6 - 2-Fluorophenol	Q	25	121		

ND - Not Detected


  
LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/27/94**

ETC Order Number **9407608**

ETC Lab ID **9407608-04**

Matrix :**SOIL**  
 Sample Date :**07/25/94**

<b>TEST</b>	<b>RESULT UNITS</b>	<b>DETECTION LIMIT</b>	<b>DATE EXTRACTED</b>	<b>DATE ANALYZED</b>	<b>BY METHOD</b>
-------------	---------------------	------------------------	-----------------------	----------------------	------------------

<b>Base/Neutral &amp; Acid Ext</b>					
Benzo(a)anthracene	ND ug/Kg	33000	07/28/94	07/28/94	RR
Benzo(b)fluoranthene	ND ug/Kg	33000			
Benzo(k)fluoranthene	ND ug/Kg	33000			
Benzo(a)pyrene	ND ug/Kg	33000			
Chrysene	ND ug/Kg	33000			
Dibenzo(a,h)anthracene	ND ug/Kg	33000			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	33000			
Pentachlorophenol	253,000 ug/Kg	33000			

<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>
S1 - Nitrobenzene-d5	Q	23 120
S2 - 2-Fluorobiphenyl	Q	30 115
S3 - 4-Terphenyl-d14	Q	18 137
S4 - Phenol-d6	Q	24 113
S5 - 2,4,6-Tribromophenol	Q	19 122
S6 - 2-Fluorophenol	Q	25 121

ND - Not Detected

Mark J. Lue  
LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**

Memphis, TN

**ORGANIC ANALYSIS DATA SHEET**Client Name **The Forrester Group**Project # **10150205**  
FID #Site ID **Arkwood**Date Arrived **07/27/94**ETC Order Number **9407608**ETC Lab ID **9407608-05**Matrix :**AQUEOUS**Sample ID: **2503**Sample Date :**07/26/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/28/94	07/28/94	RR 8270
Benzo(a)anthracene	ND ug/L	10.0			
Benzo(b)fluoranthene	ND ug/L	10.0			
Benzo(k)fluoranthene	ND ug/L	10.0			
Benzo(a)pyrene	ND ug/L	10.0			
Chrysene	ND ug/L	10.0			
Dibenzo(a,h)anthracene	ND ug/L	10.0			
Indeno(1,2,3-cd)pyrene	ND ug/L	10.0			
Pentachlorophenol	ND ug/L	10.0			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	50	35 114			
S2 - 2-Fluorobiphenyl	48	43 116			
S3 - 4-Terphenyl-d14	76	33 141			
S4 - Phenol-d6	19	10 94			
S5 - 2,4,6-Tribromophenol	49	10 123			
S6 - 2-Fluorophenol	31	21 100			

ND - Not Detected

  
**Noti L. King**  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/27/94**

ETC Order Number **9407608**

ETC Lab ID **9407608-06**

Sample ID: **2586**

Matrix :**SOIL**

Sample Date :**07/26/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/28/94	07/29/94	8270 RR
Benzo(a)anthracene	ND ug/Kg	33000			
Benzo(b)fluoranthene	ND ug/Kg	33000			
Benzo(k)fluoranthene	ND ug/Kg	33000			
Benzo(a)pyrene	ND ug/Kg	33000			
Chrysene	ND ug/Kg	33000			
Dibenzo(a,h)anthracene	ND ug/Kg	33000			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	33000			
Naphthalene	ND ug/Kg	33000			
Pentachlorophenol	296,000 ug/Kg	33000			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	Q	23	120		
S2 - 2-Fluorobiphenyl	Q	30	115		
S3 - 4-Terphenyl-d14	Q	18	137		
S4 - Phenol-d6	Q	24	113		
S5 - 2,4,6-Tribromophenol	Q	19	122		
S6 - 2-Fluorophenol	Q	25	121		

ND - Not Detected

*W.M. J. Lus*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/27/94**

ETC Order Number **9407608**

ETC Lab ID **9407608-07**

Sample ID: **2587**

Matrix :**SOIL**  
 Sample Date :**07/26/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/28/94	07/28/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	33000			
Benzo(b)fluoranthene	ND ug/Kg	33000			
Benzo(k)fluoranthene	ND ug/Kg	33000			
Benzo(a)pyrene	ND ug/Kg	33000			
Chrysene	ND ug/Kg	33000			
Dibenzo(a,h)anthracene	ND ug/Kg	33000			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	33000			
Pentachlorophenol	516,000 ug/Kg	33000			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	Q	23	120		
S2 - 2-Fluorobiphenyl	Q	30	115		
S3 - 4-Terphenyl-d14	Q	18	137		
S4 - Phenol-d6	Q	24	113		
S5 - 2,4,6-Tribromophenol	Q	19	122		
S6 - 2-Fluorophenol	Q	25	121		

ND - Not Detected

W.W. J. Bus  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**

Memphis, TN

**ORGANIC ANALYSIS DATA SHEET**Client Name **The Forrester Group**Project # **10150205**

FID #

Site ID **Arkwood**Date Arrived **07/27/94**ETC Order Number **9407608**ETC Lab ID **9407608-08**Matrix :**SOIL**Sample ID: **2588**Sample Date :**07/26/94**

<b>TEST</b>	<b>RESULT UNITS</b>	<b>DETECTION LIMIT</b>	<b>DATE EXTRACTED</b>	<b>DATE ANALYZED</b>	<b>BY METHOD</b>
Base/Neutral & Acid Ext			07/28/94	07/29/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	4950			
Benzo(b)fluoranthene	2,510j ug/Kg	4950			
Benzo(k)fluoranthene	1,640j ug/Kg	4950			
Benzo(a)pyrene	ND ug/Kg	4950			
Chrysene	2,460j ug/Kg	4950			
Dibenzo(a,h)anthracene	ND ug/Kg	4950			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	4950			
Pentachlorophenol	532,000 ug/Kg	4950			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	37	23	120		
S2 - 2-Fluorobiphenyl	73	30	115		
S3 - 4-Terphenyl-d14	81	18	137		
S4 - Phenol-d6	74	24	113		
S5 - 2,4,6-Tribromophenol	74	19	122		
S6 - 2-Fluorophenol	68	25	121		

ND - Not Detected


  
LABORATORY MANAGER

ETC, Inc.

## CHAIN OF CUSTODY RECORD

Environmental Testing & Consulting, Inc.  
 2924 Walnut Grove Rd.  
 Memphis, TN 38111  
 (901)327-2750 fax (901)327-6334

CLIENT NAME <i>The Forrester Group</i>		PHONE #: 417-864-6444	FAX RESULTS	ANALYSES (LIST BELOW)					
SITE <i>Arkwood</i>		FAX #: 417-864-6445	RUSH						
PROJECT # <i>10150205</i>		FID#	REG. TURN.						
SAMPLER (sign) <i>Mark Weller</i>		PO #	ICE						
		REMARKS TAT = 24 hrs on all samples							
# of cont.	SAMPLE ID NUMBER	LOCATION/DEPTH	SAMPLE DATE	SAMPLE TIME	SAMPLE TYPE		MATRIX		
			COMP	GRAB	AQUEOUS	SOIL	OTHER		
1	2582	B7-2-07-15-S	7/15/94	0900	✓			✓	✓
1	2583	B3-1-07-22-S	7/22/94	1400	✓			✓	✓
1	2584	B4-1-07-22-S	7/22/94	1430	✓			✓	✓
1	2585	B9-1-07-25-S	7/25/94	1100	✓			✓	✓
1	2503	ER 72694	7/26/94	1130		✓	✓		✓
1	2586	B7-1-07-26	7/26/94	1300	✓			✓	✓
1	2587	B7-2-07-26	7/26/94	1300	✓			✓	✓
1	2588	B7-3-07-26	7/26/94	1300	✓			✓	✓
1. RELINQUISHED BY (sign) <i>Mark Weller</i>		DATE 7/26/94	TIME 1600	RECEIVED BY (sign) FED EX (chain of custody in cooler)			DATE 7/26/94	TIME 1600	
2. RELINQUISHED BY (sign)		DATE	TIME	RECEIVED BY (sign)			DATE	TIME	
3. RELINQUISHED BY (print)  (sign)		DATE	TIME	RECEIVED BY LAB (print)  (sign)			DATE 7/27/94	TIME 0850	

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name - The Forrester Group

Project # 10150205  
 FID #

Site ID Arkwood

**RECEIVED**

Date Arrived 07/28/94

AUG 04 1994

ETC Order Number 9407642

**SEARCHED**

ETC Lab ID 9407642-01

Matrix :SOIL  
 Sample Date :07/26/94

Sample ID: 2592

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/28/94	07/29/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	3300			
Benzo(b)fluoranthene	ND ug/Kg	3300			
Benzo(k)fluoranthene	ND ug/Kg	3300			
Benzo(a)pyrene	ND ug/Kg	3300			
Chrysene	1,780j ug/Kg	3300			
Dibenzo(a,h)anthracene	ND ug/Kg	3300			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3300			
Pentachlorophenol	602,000 ug/Kg	3300			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	21 Q	23	120		
S2 - 2-Fluorobiphenyl	68	30	115		
S3 - 4-Terphenyl-d14	83	18	137		
S4 - Phenol-d6	46	24	113		
S5 - 2,4,6-Tribromophenol	71	19	122		
S6 - 2-Fluorophenol	63	25	121		

ND - Not Detected

*W.J. Pug*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**

Memphis, TN

**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**

FID #

Site ID **Arkwood**

Date Arrived **07/28/94**

ETC Order Number **9407642**

ETC Lab ID **9407642-02**

**Matrix :SOIL**

Sample ID: **2593**

**Sample Date :07/26/94**

<b>TEST</b>	<b>RESULT UNITS</b>	<b>DETECTION LIMIT</b>	<b>DATE EXTRACTED</b>	<b>DATE ANALYZED</b>	<b>DATE BY METHOD</b>
<b>Base/Neutral &amp; Acid Ext</b>					<b>8270</b>
Benzo(a)anthracene	ND ug/Kg	3300			
Benzo(b)fluoranthene	1,480j ug/Kg	3300			
Benzo(k)fluoranthene	1,100j ug/Kg	3300			
Benzo(a)pyrene	1,120j ug/Kg	3300			
Chrysene	3,830 ug/Kg	3300			
Dibenzo(a,h)anthracene	ND ug/Kg	3300			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3300			
Pentachlorophenol	324,000 ug/Kg	3300			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	39	23	120		
S2 - 2-Fluorobiphenyl	60	30	115		
S3 - 4-Terphenyl-d14	92	18	137		
S4 - Phenol-d6	58	24	113		
S5 - 2,4,6-Tribromophenol	73	19	122		
S6 - 2-Fluorophenol	63	25	121		

ND - Not Detected

*Mark F. Rugg*  
LABORATORY MANAGER

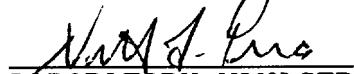
**ENVIRONMENTAL TESTING & CONSULTING, INC.**

Memphis, TN

**ORGANIC ANALYSIS DATA SHEET**Client Name - **The Forrester Group**Project # 10150205  
FID #Site ID **Arkwood**Date Arrived **07/28/94**ETC Order Number **9407642**ETC Lab ID **9407642-03**Sample ID: **2594**Matrix :**SOIL**  
Sample Date :**07/26/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/28/94	07/28/94	RR
Benzo(a)anthracene	ND ug/Kg	6600			
Benzo(b)fluoranthene	ND ug/Kg	6600			
Benzo(k)fluoranthene	ND ug/Kg	6600			
Benzo(a)pyrene	ND ug/Kg	6600			
Chrysene	ND ug/Kg	6600			
Dibenzo(a,h)anthracene	ND ug/Kg	6600			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	6600			
Pentachlorophenol	517,000j ug/Kg	6600			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	62		23	120	
S2 - 2-Fluorobiphenyl	110		30	115	
S3 - 4-Terphenyl-d14	89		18	137	
S4 - Phenol-d6	77		24	113	
S5 - 2,4,6-Tribromophenol	139 Q		19	122	
S6 - 2-Fluorophenol	70		25	121	

ND - Not Detected

  
**LABORATORY MANAGER**

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/28/94**

ETC Order Number **9407642**

ETC Lab ID **9407642-04**

Sample ID: **2598**

Matrix :**SOIL**  
 Sample Date :**07/26/94**

<b>TEST</b>	<b>RESULT UNITS</b>	<b>DETECTION DATE</b>		<b>DATE EXTRACTED</b>	<b>ANALYZED BY METHOD</b>
		<b>LIMIT</b>	<b>8270</b>		
<b>Base/Neutral &amp; Acid Ext</b>				07/28/94	07/28/94 RR
Benzo(a)anthracene	ND ug/Kg	66000			
Benzo(b)fluoranthene	ND ug/Kg	66000			
Benzo(k)fluoranthene	ND ug/Kg	66000			
Benzo(a)pyrene	ND ug/Kg	66000			
Chrysene	ND ug/Kg	66000			
Dibenzo(a,h)anthracene	ND ug/Kg	66000			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	66000			
Pentachlorophenol	1050000j ug/Kg	66000			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	Q	23	120		
S2 - 2-Fluorobiphenyl	Q	30	115		
S3 - 4-Terphenyl-d14	Q	18	137		
S4 - Phenol-d6	Q	24	113		
S5 - 2,4,6-Tribromophenol	Q	19	122		
S6 - 2-Fluorophenol	Q	25	121		

ND - Not Detected

*Mark L. Bus*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # 10150205  
 FID #

Site ID **Arkwood**

Date Arrived **07/28/94**

ETC Order Number **9407642**

ETC Lab ID **9407642-05**

Sample ID: **2600**

Matrix :**SOIL**

Sample Date :**07/27/94**

TEST	RESULT UNITS	DETECTION	DATE	EXTRACTED	ANALYZED	BY METHOD
		LIMIT	DATE			
Base/Neutral & Acid Ext				07/28/94	07/29/94	RR
Benzo(a)anthracene	ND ug/Kg	6600				
Benzo(b)fluoranthene	ND ug/Kg	6600				
Benzo(k)fluoranthene	ND ug/Kg	6600				
Benzo(a)pyrene	ND ug/Kg	6600				
Chrysene	ND ug/Kg	6600				
Dibenzo(a,h)anthracene	ND ug/Kg	6600				
Indeno(1,2,3-cd)pyrene	ND ug/Kg	6600				
Pentachlorophenol	26,200 ug/Kg	6600				
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>OC Limits</b>			
S1 - Nitrobenzene-d5	Q	23	120			
S2 - 2-Fluorobiphenyl	Q	30	115			
S3 - 4-Terphenyl-d14	Q	18	137			
S4 - Phenol-d6	Q	24	113			
S5 - 2,4,6-Tribromophenol	Q	19	122			
S6 - 2-Fluorophenol	Q	25	121			

ND - Not Detected

*M.W.J. Luns*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name - **The Forrester Group**

Project # 10150205  
 FID #

Site ID **Arkwood**

Date Arrived **07/28/94**

ETC Order Number **9407642**

ETC Lab ID **9407642-06**

Sample ID: **2601**

Matrix :SOIL  
 Sample Date :07/27/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/28/94	07/28/94	RR 8270
Benzo(a)anthracene	ND ug/Kg	33000			
Benzo(b)fluoranthene	ND ug/Kg	33000			
Benzo(k)fluoranthene	ND ug/Kg	33000			
Benzo(a)pyrene	ND ug/Kg	33000			
Chrysene	ND ug/Kg	33000			
Dibenzo(a,h)anthracene	ND ug/Kg	33000			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	33000			
Pentachlorophenol	255,000 ug/Kg	33000			

<u>Surrogate Standard</u>	% Recovery	QC Limits	
S1 - Nitrobenzene-d5	Q	23	120
S2 - 2-Fluorobiphenyl	Q	30	115
S3 - 4-Terphenyl-d14	Q	18	137
S4 - Phenol-d6	Q	24	113
S5 - 2,4,6-Tribromophenol	Q	19	122
S6 - 2-Fluorophenol	Q	25	121

ND - Not Detected

  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name - **The Forrester Group**

Project # 10150205  
 FID #

Site ID **Arkwood**

Date Arrived **07/28/94**

ETC Order Number **9407642**

ETC Lab ID **9407642-07**

Sample ID: **2602**

Matrix :**SOIL**  
 Sample Date :**07/27/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/28/94	07/29/94	RR
Benzo(a)anthracene	ND ug/Kg	3300			
Benzo(b)fluoranthene	ND ug/Kg	3300			
Benzo(k)fluoranthene	ND ug/Kg	3300			
Benzo(a)pyrene	ND ug/Kg	3300			
Chrysene	ND ug/Kg	3300			
Dibenzo(a,h)anthracene	ND ug/Kg	3300			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3300			
Pentachlorophenol	27,800 ug/Kg	3300			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	90	23	120		
S2 - 2-Fluorobiphenyl	64	30	115		
S3 - 4-Terphenyl-d14	96	18	137		
S4 - Phenol-d6	97	24	113		
S5 - 2,4,6-Tribromophenol	77	19	122		
S6 - 2-Fluorophenol	69	25	121		

ND - Not Detected

*Mark J. Lee*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name - **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/28/94**

ETC Order Number **9407642**

ETC Lab ID **9407642-08**

Sample ID: **2504**

Matrix :**AQUEOUS**  
 Sample Date :**07/27/94**

<b>TEST</b>	<b>RESULT UNITS</b>	<b>DETECTION LIMIT</b>	<b>DATE EXTRACTED</b>	<b>DATE ANALYZED</b>	<b>BY METHOD</b>
<b>Base/Neutral &amp; Acid Ext</b>					<b>8270</b>
Benzo(a)anthracene	ND ug/L	10.0			
Benzo(b)fluoranthene	ND ug/L	10.0			
Benzo(k)fluoranthene	ND ug/L	10.0			
Benzo(a)pyrene	ND ug/L	10.0			
Chrysene	ND ug/L	10.0			
Dibenzo(a,h)anthracene	ND ug/L	10.0			
Indeno(1,2,3-cd)pyrene	ND ug/L	10.0			
Pentachlorophenol	ND ug/L	10.0			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	70	35	114		
S2 - 2-Fluorobiphenyl	63	43	116		
S3 - 4-Terphenyl-d14	84	33	141		
S4 - Phenol-d6	41	10	94		
S5 - 2,4,6-Tribromophenol	89	10	123		
S6 - 2-Fluorophenol	62	21	100		

ND - Not Detected

Mark J. Lue  
 LABORATORY MANAGER

ETC, Inc.

## CHAIN OF CUSTODY RECORD

Environmental Testing & Consulting, Inc.  
 2924 Walnut Grove Rd.  
 Memphis, TN 38111  
 (901)327-2750 fax (901)327-6334

CLIENT NAME <i>The Forrester Group</i>		PHONE #: <i>417-864-6444</i>	FAX RESULTS	ANALYSES (LIST BELOW)			
SITE <i>Arkwood</i>		FAX #: <i>417-864-6444</i>	RUSH				
PROJECT # <i>10150205</i>		FID#	REG. TURN.				
SAMPLER (sign) <i>Walter C. Mabie</i>		PO #	ICE				
# of cont.	SAMPLE ID NUMBER	LOCATION/ DEPTH	SAMPLE DATE	SAMPLE TIME	SAMPLE TYPE	MATRIX	
			COMP	GRAB	AQUEOUS	SOIL	OTHER
1	2592	BL-1-07-24	7/26/94	1400	X		X
1	2593	BL-2-07-23 <sup>24</sup>	7/26/94	1400	X		X
1	2594	BL-3-07-24 <sup>24</sup>	7/26/94	1400	X		X
1	2598	BL-3-07-26-S	7/26/94	1400	X		X
1	2600	BL-1-07-27	7/27/94	1400	X		X
1	2601	BL-2-07-27	7/27/94	1400	X		X
1	2602	BL-3-07-27	7/27/94	1400	X		X
1	<del>2503</del> 2504	ER12794	7/27/94	1400	X	X	X
1. RELINQUISHED BY (sign) <i>Walter C. Mabie</i>	DATE <i>7/27/94</i>	TIME <i>1730</i>	RECEIVED BY (sign) <i>Fed Ex, Chained custody in cooler</i>	DATE <i>7/27/94</i>	TIME <i>1730</i>		
2. RELINQUISHED BY (sign)	DATE	TIME	RECEIVED BY (sign)	DATE	TIME		
3. RELINQUISHED BY (print) (sign)	DATE	TIME	RECEIVED BY LAB (print) <i>S. Herrmann</i> <i>J. Herrmann</i>	DATE <i>7/28/94</i>	TIME <i>0855</i>		

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

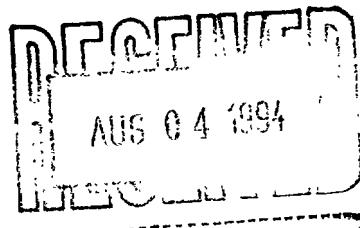
Client Name . The Forrester Group

Project # 10150205  
 FID #

Site ID Arkwood

Date Arrived 07/23/94

ETC Order Number 9407552



ETC Lab ID 9407552-01

Sample ID: 2550

Matrix :SOIL  
 Sample Date :07/22/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/23/94	07/24/94	RR 8270
Acenaphthene	ND ug/Kg	1750			
Acenaphthylene	ND ug/Kg	1750			
Anthracene	ND ug/Kg	1750			
Benzo(a)anthracene	ND ug/Kg	1750			
Benzo(b)fluoranthene	302j ug/Kg	1750			
Benzo(k)fluoranthene	390j ug/Kg	1750			
Benzo(g,h,i)perylene	ND ug/Kg	1750			
Benzo(a)pyrene	ND ug/Kg	1750			
Chrysene	ND ug/Kg	1750			
Dibenzo(a,h)anthracene	ND ug/Kg	1750			
Fluoranthene	374j ug/Kg	1750			
Fluorene	ND ug/Kg	1750			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1750			
Naphthalene	ND ug/Kg	1750			
Pentachlorophenol	45,500 ug/Kg	1750			
Phenanthrene	246j ug/Kg	1750			
Pyrene	678j ug/Kg	1750			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	40	23 120
S2 - 2-Fluorobiphenyl	60	30 115
S3 - 4-Terphenyl-d14	64	18 137
S4 - Phenol-d6	48	24 113
S5 - 2,4,6-Tribromophenol	76	19 122
S6 - 2-Fluorophenol	60	25 121

ND - Not Detected

*Mark J. Fuer*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # 10150205  
 FID #

Site ID **Arkwood**

Date Arrived **07/23/94**

ETC Order Number **9407552**

ETC Lab ID **9407552-02**

Sample ID: **2551**

Matrix :SOIL

Sample Date :**07/22/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/23/94	07/24/94	RR
Acenaphthene	ND ug/Kg	1910			
Acenaphthylene	ND ug/Kg	1910			
Anthracene	ND ug/Kg	1910			
Benzo(a)anthracene	ND ug/Kg	1910			
Benzo(b)fluoranthene	556j ug/Kg	1910			
Benzo(k)fluoranthene	554j ug/Kg	1910			
Benzo(g,h,i)perylene	ND ug/Kg	1910			
Benzo(a)pyrene	536j ug/Kg	1910			
Chrysene	ND ug/Kg	1910			
Dibenzo(a,h)anthracene	ND ug/Kg	1910			
Fluoranthene	1,170j ug/Kg	1910			
Fluorene	ND ug/Kg	1910			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1910			
Naphthalene	ND ug/Kg	1910			
Pentachlorophenol	44,200j ug/Kg	1910			
Phenanthrene	626j ug/Kg	1910			
Pyrene	1,170j ug/Kg	1910			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	36	23	120		
S2 - 2-Fluorobiphenyl	60	30	115		
S3 - 4-Terphenyl-d14	75	18	137		
S4 - Phenol-d6	192 Q	24	113		
S5 - 2,4,6-Tribromophenol	81	19	122		
S6 - 2-Fluorophenol	110	25	121		

ND - Not Detected

*W.M. J. P.*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name - **The Forrester Group**

Project # 10150205  
 FID #

Site ID **Arkwood**

Date Arrived **07/23/94**

ETC Order Number **9407552**

ETC Lab ID **9407552-03**

Sample ID: **2552**

Matrix :SOIL  
 Sample Date :07/22/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/23/94	07/24/94	RR 8270
Acenaphthene	ND ug/Kg	1950			
Acenaphthylene	ND ug/Kg	1950			
Anthracene	ND ug/Kg	1950			
Benzo(a)anthracene	ND ug/Kg	1950			
Benzo(b)fluoranthene	558j ug/Kg	1950			
Benzo(k)fluoranthene	ND ug/Kg	1950			
Benzo(g,h,i)perylene	ND ug/Kg	1950			
Benzo(a)pyrene	ND ug/Kg	1950			
Chrysene	ND ug/Kg	1950			
Dibenzo(a,h)anthracene	ND ug/Kg	1950			
Fluoranthene	1,150j ug/Kg	1950			
Fluorene	ND ug/Kg	1950			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1950			
Naphthalene	ND ug/Kg	1950			
Pentachlorophenol	43,100 ug/Kg	1950			
Phenanthrene	1,740j ug/Kg	1950			
Pyrene	917j ug/Kg	1950			

Surrogate Standard	% Recovery	QC Limits	
S1 - Nitrobenzene-d5	30	23	120
S2 - 2-Fluorobiphenyl	47	30	115
S3 - 4-Terphenyl-d14	58	18	137
S4 - Phenol-d6	37	24	113
S5 - 2,4,6-Tribromophenol	66	19	122
S6 - 2-Fluorophenol	30	25	121

ND - Not Detected

*Vicki L. Pava*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name : The Forrester Group

Project # 10150205  
 FID #

Site ID Arkwood

Date Arrived 07/23/94

ETC Order Number 9407552

ETC Lab ID 9407552-04

Sample ID: 2553

Matrix :SOIL  
 Sample Date :07/22/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/23/94	07/24/94	RR 8270
Acenaphthene	ND ug/Kg	1950			
Acenaphthylene	ND ug/Kg	1950			
Anthracene	ND ug/Kg	1950			
Benzo(a)anthracene	ND ug/Kg	1950			
Benzo(b)fluoranthene	ND ug/Kg	1950			
Benzo(k)fluoranthene	ND ug/Kg	1950			
Benzo(g,h,i)perylene	ND ug/Kg	1950			
Benzo(a)pyrene	ND ug/Kg	1950			
Chrysene	ND ug/Kg	1950			
Dibenzo(a,h)anthracene	ND ug/Kg	1950			
Fluoranthene	ND ug/Kg	1950			
Fluorene	ND ug/Kg	1950			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1950			
Naphthalene	ND ug/Kg	1950			
Pentachlorophenol	102,000 ug/Kg	1950			
Phenanthrene	ND ug/Kg	1950			
Pyrene	1,150j ug/Kg	1950			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>OC Limits</b>			
S1 - Nitrobenzene-d5	49	23	120		
S2 - 2-Fluorobiphenyl	66	30	115		
S3 - 4-Terphenyl-d14	59	18	137		
S4 - Phenol-d6	45	24	113		
S5 - 2,4,6-Tribromophenol	75	19	122		
S6 - 2-Fluorophenol	41	25	121		

ND - Not Detected

*Mark J. Kuy*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/23/94**

ETC Order Number **9407552**

ETC Lab ID **9407552-05**

Sample ID: **2558**

Matrix :**SOIL**  
 Sample Date :**07/22/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/23/94	07/24/94	RR
Acenaphthene	ND ug/Kg	19800			
Acenaphthylene	ND ug/Kg	19800			
Anthracene	ND ug/Kg	19800			
Benzo(a)anthracene	ND ug/Kg	19800			
Benzo(b)fluoranthene	ND ug/Kg	19800			
Benzo(k)fluoranthene	ND ug/Kg	19800			
Benzo(g,h,i)perylene	ND ug/Kg	19800			
Benzo(a)pyrene	ND ug/Kg	19800			
Chrysene	ND ug/Kg	19800			
Dibenzo(a,h)anthracene	ND ug/Kg	19800			
Fluoranthene	ND ug/Kg	19800			
Fluorene	ND ug/Kg	19800			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	19800			
Naphthalene	ND ug/Kg	19800			
Pentachlorophenol	1,520,000 ug/Kg	19800			
Phenanthrene	ND ug/Kg	19800			
Pyrene	4,150j ug/Kg	19800			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	63	23 120
S2 - 2-Fluorobiphenyl	82	30 115
S3 - 4-Terphenyl-d14	79	18 137
S4 - Phenol-d6	35	24 113
S5 - 2,4,6-Tribromophenol	107	19 122
S6 - 2-Fluorophenol	82	25 121

ND - Not Detected

*Mark J. Lee*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/23/94**

ETC Order Number **9407552**

ETC Lab ID **9407552-06**

Sample ID: **2559**

Matrix :**SOIL**

Sample Date :**07/22/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/23/94	07/24/94	RR 8270
Acenaphthene	ND ug/Kg	19100			
Acenaphthylene	ND ug/Kg	19100			
Anthracene	ND ug/Kg	19100			
Benzo(a)anthracene	ND ug/Kg	19100			
Benzo(b)fluoranthene	ND ug/Kg	19100			
Benzo(k)fluoranthene	ND ug/Kg	19100			
Benzo(g,h,i)perylene	ND ug/Kg	19100			
Benzo(a)pyrene	ND ug/Kg	19100			
Chrysene	ND ug/Kg	19100			
Dibenzo(a,h)anthracene	ND ug/Kg	19100			
Fluoranthene	ND ug/Kg	19100			
Fluorene	ND ug/Kg	19100			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	19100			
Naphthalene	ND ug/Kg	19100			
Pentachlorophenol	488,000j ug/Kg	19100			
Phenanthrene	ND ug/Kg	19100			
Pyrene	ND ug/Kg	19100			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	77	23 120
S2 - 2-Fluorobiphenyl	80	30 115
S3 - 4-Terphenyl-d14	90	18 137
S4 - Phenol-d6	33	24 113
S5 - 2,4,6-Tribromophenol	107	19 122
S6 - 2-Fluorophenol	87	25 121

ND - Not Detected

*Mark L. Lewis*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name : The Forrester Group

Project # 10150205  
 FID #

Site ID Arkwood

Date Arrived 07/23/94

ETC Order Number 9407552

ETC Lab ID 9407552-07

Matrix : SOIL  
 Sample Date : 07/22/94

Sample ID: 2560

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/24/94	07/24/94	RR 8270
Acenaphthene	ND ug/Kg	17800			
Acenaphthylene	ND ug/Kg	17800			
Anthracene	ND ug/Kg	17800			
Benzo(a)anthracene	ND ug/Kg	17800			
Benzo(b)fluoranthene	ND ug/Kg	17800			
Benzo(k)fluoranthene	ND ug/Kg	17800			
Benzo(g,h,i)perylene	ND ug/Kg	17800			
Benzo(a)pyrene	ND ug/Kg	17800			
Chrysene	ND ug/Kg	17800			
Dibenzo(a,h)anthracene	ND ug/Kg	17800			
Fluoranthene	ND ug/Kg	17800			
Fluorene	ND ug/Kg	17800			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	17800			
Naphthalene	ND ug/Kg	17800			
Pentachlorophenol	147,000 ug/Kg	17800			
Phenanthrene	ND ug/Kg	17800			
Pyrene	3,090j ug/Kg	17800			

<u>Surrogate Standard</u>	% Recovery	QC Limits	
S1 - Nitrobenzene-d5	117	23	120
S2 - 2-Fluorobiphenyl	71	30	115
S3 - 4-Terphenyl-d14	83	18	137
S4 - Phenol-d6	111	24	113
S5 - 2,4,6-Tribromophenol	92	19	122
S6 - 2-Fluorophenol	262 Q	25	121

ND - Not Detected

John J. Kry  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name- **The Forrester Group**

Project # 10150205  
 FID #

Site ID **Arkwood**

Date Arrived **07/23/94**

ETC Order Number **9407552**

ETC Lab ID **9407552-08**

Sample ID: **2561**

Matrix :SOIL  
 Sample Date :07/22/94

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/23/94	07/24/94	RR 8270
Acenaphthene	ND ug/Kg	1980			
Acenaphthylene	ND ug/Kg	1980			
Anthracene	ND ug/Kg	1980			
Benzo(a)anthracene	ND ug/Kg	1980			
Benzo(b)fluoranthene	ND ug/Kg	1980			
Benzo(k)fluoranthene	ND ug/Kg	1980			
Benzo(g,h,i)perylene	ND ug/Kg	1980			
Benzo(a)pyrene	ND ug/Kg	1980			
Chrysene	ND ug/Kg	1980			
Dibenzo(a,h)anthracene	ND ug/Kg	1980			
Fluoranthene	ND ug/Kg	1980			
Fluorene	ND ug/Kg	1980			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	1980			
Naphthalene	ND ug/Kg	1980			
Pentachlorophenol	23,900 ug/Kg	1980			
Phenanthrene	ND ug/Kg	1980			
Pyrene	ND ug/Kg	1980			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	56	23	120		
S2 - 2-Fluorobiphenyl	75	30	115		
S3 - 4-Terphenyl-d14	57	18	137		
S4 - Phenol-d6	51	24	113		
S5 - 2,4,6-Tribromophenol	87	19	122		
S6 - 2-Fluorophenol	48	25	121		

ND - Not Detected

  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/30/94**

ETC Order Number **9407713**

ETC Lab ID **9407713-01**

Sample ID: **2612**

Matrix :**SOIL**  
 Sample Date :**07/29/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/30/94	08/01/94	RR
Benzo(a)anthracene	ND ug/Kg	4620			
Benzo(b)fluoranthene	ND ug/Kg	4620			
Benzo(k)fluoranthene	ND ug/Kg	4620			
Benzo(a)pyrene	ND ug/Kg	4620			
Chrysene	ND ug/Kg	4620			
Dibenzo(a,h)anthracene	ND ug/Kg	4620			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	4620			
Pentachlorophenol	181,000 ug/Kg	4620			

<u>Surrogate Standard</u>	<u>% Recovery</u>	<u>QC Limits</u>	
S1 - Nitrobenzene-d5	38	23	120
S2 - 2-Fluorobiphenyl	83	30	115
S3 - 4-Terphenyl-d14	123	18	137
S4 - Phenol-d6	78	24	113
S5 - 2,4,6-Tribromophenol	106	19	122
S6 - 2-Fluorophenol	73	25	121

ND - Not Detected

W.W. J. Pus  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/30/94**

ETC Order Number **9407713**

ETC Lab ID **9407713-02**

Sample ID: **2506**

Matrix :**AQUEOUS**  
 Sample Date :**07/29/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/31/94	08/01/94	8270 RR
Benzo(a)anthracene	ND ug/L	10.0			
Benzo(b)fluoranthene	ND ug/L	10.0			
Benzo(k)fluoranthene	ND ug/L	10.0			
Benzo(a)pyrene	ND ug/L	10.0			
Chrysene	ND ug/L	10.0			
Dibenzo(a,h)anthracene	ND ug/L	10.0			
Indeno(1,2,3-cd)pyrene	ND ug/L	10.0			
Pentachlorophenol	ND ug/L	10.0			
<b>Surrogate Standard</b>	<b>% Recovery</b>		<b>QC Limits</b>		
S1 - Nitrobenzene-d5	75	35	114		
S2 - 2-Fluorobiphenyl	76	43	116		
S3 - 4-Terphenyl-d14	85	33	141		
S4 - Phenol-d6	33	10	94		
S5 - 2,4,6-Tribromophenol	77	10	123		
S6 - 2-Fluorophenol	46	21	100		

ND - Not Detected

*Mark J. Lee*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/26/94**

ETC Order Number **9407582**

ETC Lab ID **9407582-01**

Sample ID: **2566**

Matrix :**SOIL**  
 Sample Date :**07/22/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/26/94	07/26/94	RR
Acenaphthene	ND ug/Kg	3300			
Acenaphthylene	ND ug/Kg	3300			
Anthracene	ND ug/Kg	3300			
Benzo(a)anthracene	ND ug/Kg	3300			
Benzo(b)fluoranthene	ND ug/Kg	3300			
Benzo(k)fluoranthene	ND ug/Kg	3300			
Benzo(g,h,i)perylene	ND ug/Kg	3300			
Benzo(a)pyrene	ND ug/Kg	3300			
Chrysene	ND ug/Kg	3300			
Dibenzo(a,h)anthracene	ND ug/Kg	3300			
Fluoranthene	1,220j ug/Kg	3300			
Fluorene	ND ug/Kg	3300			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3300			
Naphthalene	ND ug/Kg	3300			
Pentachlorophenol	88,100j ug/Kg	3300			
Phenanthrene	ND ug/Kg	3300			
Pyrene	3,450 ug/Kg	3300			

<u>Surrogate Standard</u>	% Recovery	QC Limits	
S1 - Nitrobenzene-d5	59	23	120
S2 - 2-Fluorobiphenyl	78	30	115
S3 - 4-Terphenyl-d14	68	18	137
S4 - Phenol-d6	9 Q	24	113
S5 - 2,4,6-Tribromophenol	9 Q	19	122
S6 - 2-Fluorophenol	8 Q	25	121

ND - Not Detected

*M. J. Lee*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/26/94**

ETC Order Number **9407582**

ETC Lab ID **9407582-02**

Matrix :**SOIL**  
 Sample Date :**07/22/94**

Sample ID: **2567**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/26/94	07/26/94	RR 8270
Acenaphthene	ND ug/Kg	3300			
Acenaphthylene	ND ug/Kg	3300			
Anthracene	ND ug/Kg	3300			
Benzo(a)anthracene	ND ug/Kg	3300			
Benzo(b)fluoranthene	ND ug/Kg	3300			
Benzo(k)fluoranthene	ND ug/Kg	3300			
Benzo(g,h,i)perylene	ND ug/Kg	3300			
Benzo(a)pyrene	ND ug/Kg	3300			
Chrysene	ND ug/Kg	3300			
Dibenzo(a,h)anthracene	ND ug/Kg	3300			
Fluoranthene	ND ug/Kg	3300			
Fluorene	ND ug/Kg	3300			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3300			
Naphthalene	ND ug/Kg	3300			
Pentachlorophenol	75,000 <sup>j</sup> ug/Kg	3300			
Phenanthrene	ND ug/Kg	3300			
Pyrene	ND ug/Kg	3300			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	72	23	120		
S2 - 2-Fluorobiphenyl	87	30	115		
S3 - 4-Terphenyl-d14	79	18	137		
S4 - Phenol-d6	12 Q	24	113		
S5 - 2,4,6-Tribromophenol	10 Q	19	122		
S6 - 2-Fluorophenol	9 Q	25	121		

ND - Not Detected

  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/26/94**

ETC Order Number **9407582**

ETC Lab ID **9407582-03**

Matrix :SOIL  
 Sample Date :**07/22/94**

**Sample ID: 2568**

<b>TEST</b>	<b>RESULT UNITS</b>	<b>DETECTION LIMIT</b>	<b>DATE EXTRACTED</b>	<b>DATE ANALYZED</b>	<b>BY METHOD</b>
Base/Neutral & Acid Ext			07/26/94	07/26/94	RR
Acenaphthene	ND ug/Kg	3300			
Acenaphthylene	ND ug/Kg	3300			
Anthracene	ND ug/Kg	3300			
Benzo(a)anthracene	ND ug/Kg	3300			
Benzo(b)fluoranthene	2,190j ug/Kg	3300			
Benzo(k)fluoranthene	2,310j ug/Kg	3300			
Benzo(g,h,i)perylene	ND ug/Kg	3300			
Benzo(a)pyrene	1,490j ug/Kg	3300			
Chrysene	2,090j ug/Kg	3300			
Dibenzo(a,h)anthracene	ND ug/Kg	3300			
Fluoranthene	1,650j ug/Kg	3300			
Fluorene	ND ug/Kg	3300			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3300			
Naphthalene	ND ug/Kg	3300			
Pentachlorophenol	258,000j ug/Kg	3300			
Phenanthrene	ND ug/Kg	3300			
Pyrene	2,370j ug/Kg	3300			

<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>
S1 - Nitrobenzene-d5	54	23 120
S2 - 2-Fluorobiphenyl	86	30 115
S3 - 4-Terphenyl-d14	54	18 137
S4 - Phenol-d6	11 Q	24 113
S5 - 2,4,6-Tribromophenol	10 Q	19 122
S6 - 2-Fluorophenol	8 Q	25 121

ND - Not Detected

*W.H. L.*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/26/94**

ETC Order Number **9407582**

ETC Lab ID **9407582-04**

Sample ID: **2569**

Matrix :SOIL  
 Sample Date :**07/22/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/26/94	07/26/94	RR 8270
Acenaphthene	ND ug/Kg	3300			
Acenaphthylene	ND ug/Kg	3300			
Anthracene	ND ug/Kg	3300			
Benzo(a)anthracene	ND ug/Kg	3300			
Benzo(b)fluoranthene	ND ug/Kg	3300			
Benzo(k)fluoranthene	ND ug/Kg	3300			
Benzo(g,h,i)perylene	ND ug/Kg	3300			
Benzo(a)pyrene	ND ug/Kg	3300			
Chrysene	ND ug/Kg	3300			
Dibenzo(a,h)anthracene	ND ug/Kg	3300			
Fluoranthene	ND ug/Kg	3300			
Fluorene	ND ug/Kg	3300			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3300			
Pentachlorophenol	120,000j ug/Kg	3300			
Phenanthrene	ND ug/Kg	3300			
Pyrene	ND ug/Kg	3300			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	111	23 120
S2 - 2-Fluorobiphenyl	98	30 115
S3 - 4-Terphenyl-d14	86	18 137
S4 - Phenol-d6	12 Q	24 113
S5 - 2,4,6-Tribromophenol	11 Q	19 122
S6 - 2-Fluorophenol	9 Q	25 121

ND - Not Detected

  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/26/94**

ETC Order Number **9407582**

ETC Lab ID **9407582-05**

Sample ID: **2574**

Matrix :**SOIL**  
 Sample Date :**07/25/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/26/94	07/26/94	RR
Acenaphthene	ND ug/Kg	3300			
Acenaphthylene	ND ug/Kg	3300			
Anthracene	7,790 ug/Kg	3300			
Benzo(a)anthracene	ND ug/Kg	3300			
Benzo(b)fluoranthene	1,420j ug/Kg	3300			
Benzo(k)fluoranthene	2,260j ug/Kg	3300			
Benzo(g,h,i)perylene	ND ug/Kg	3300			
Benzo(a)pyrene	ND ug/Kg	3300			
Chrysene	3,090j ug/Kg	3300			
Dibenzo(a,h)anthracene	ND ug/Kg	3300			
Fluoranthene	6,660 ug/Kg	3300			
Fluorene	ND ug/Kg	3300			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3300			
Naphthalene	ND ug/Kg	3300			
Pentachlorophenol	408,000j ug/Kg	3300			
Phenanthrene	ND ug/Kg	3300			
Pyrene	9,980 ug/Kg	3300			

Surrogate Standard	% Recovery	QC Limits
S1 - Nitrobenzene-d5	53	23 120
S2 - 2-Fluorobiphenyl	110	30 115
S3 - 4-Terphenyl-d14	84	18 137
S4 - Phenol-d6	13 Q	24 113
S5 - 2,4,6-Tribromophenol	10 Q	19 122
S6 - 2-Fluorophenol	8 Q	25 121

ND - Not Detected

*V.M. J. Lin,*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/26/94**

ETC Order Number **9407582**

ETC Lab ID **9407582-06**

Sample ID: **2575**

Matrix :**SOIL**  
 Sample Date :**07/25/94**

<b>TEST</b>	<b>RESULT UNITS</b>	<b>DETECTION LIMIT</b>	<b>DATE EXTRACTED</b>	<b>DATE ANALYZED</b>	<b>BY METHOD</b>
Base/Neutral & Acid Ext			07/26/94	07/26/94	RR 8270
Acenaphthene	ND ug/Kg	3300			
Acenaphthylene	ND ug/Kg	3300			
Anthracene	4,960 ug/Kg	3300			
Benzo(a)anthracene	ND ug/Kg	3300			
Benzo(b)fluoranthene	ND ug/Kg	3300			
Benzo(k)fluoranthene	1,760j ug/Kg	3300			
Benzo(g,h,i)perylene	ND ug/Kg	3300			
Benzo(a)pyrene	ND ug/Kg	3300			
Chrysene	2,860j ug/Kg	3300			
Dibenzo(a,h)anthracene	ND ug/Kg	3300			
Fluoranthene	12,600 ug/Kg	3300			
Fluorene	ND ug/Kg	3300			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3300			
Naphthalene	ND ug/Kg	3300			
Pentachlorophenol	595,000j ug/Kg	3300			
Phenanthrene	ND ug/Kg	3300			
Pyrene	8,550 ug/Kg	3300			

<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>	
S1 - Nitrobenzene-d5	55	23	120
S2 - 2-Fluorobiphenyl	87	30	115
S3 - 4-Terphenyl-d14	81	18	137
S4 - Phenol-d6	12 Q	24	113
S5 - 2,4,6-Tribromophenol	11 Q	19	122
S6 - 2-Fluorophenol	8 Q	25	121

ND - Not Detected

*N.M. J. Pen*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/26/94**

ETC Order Number **9407582**

ETC Lab ID **9407582-07**

Sample ID: **2576**

Matrix :**SOIL**  
 Sample Date :**07/25/94**

TEST	RESULT UNITS	DETECTION LIMIT	DATE EXTRACTED	DATE ANALYZED	BY METHOD
Base/Neutral & Acid Ext			07/26/94	07/26/94	RR 8270
Acenaphthene	1,910j ug/Kg	3300			
Acenaphthylene	ND ug/Kg	3300			
Anthracene	6,630 ug/Kg	3300			
Benzo(a)anthracene	3,820 ug/Kg	3300			
Benzo(b)fluoranthene	1,760j ug/Kg	3300			
Benzo(k)fluoranthene	4,020 ug/Kg	3300			
Benzo(g,h,i)perylene	ND ug/Kg	3300			
Benzo(a)pyrene	1,880j ug/Kg	3300			
Chrysene	6,780 ug/Kg	3300			
Dibenzo(a,h)anthracene	ND ug/Kg	3300			
Fluoranthene	30,000 ug/Kg	3300			
Fluorene	ND ug/Kg	3300			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	3300			
Naphthalene	ND ug/Kg	3300			
Pentachlorophenol	499,000j ug/Kg	3300			
Phenanthrene	ND ug/Kg	3300			
Pyrene	26,600 ug/Kg	3300			
<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>			
S1 - Nitrobenzene-d5	52	23	120		
S2 - 2-Fluorobiphenyl	88	30	115		
S3 - 4-Terphenyl-d14	98	18	137		
S4 - Phenol-d6	9 Q	24	113		
S5 - 2,4,6-Tribromophenol	10 Q	19	122		
S6 - 2-Fluorophenol	8 Q	25	121		

ND - Not Detected

*M.W. J. Pur*  
 LABORATORY MANAGER

**ENVIRONMENTAL TESTING & CONSULTING, INC.**  
 Memphis, TN  
**ORGANIC ANALYSIS DATA SHEET**

Client Name **The Forrester Group**

Project # **10150205**  
 FID #

Site ID **Arkwood**

Date Arrived **07/26/94**

ETC Order Number **9407582**

ETC Lab ID **9407582-08**

Sample ID: **2577**

Matrix :**SOIL**  
 Sample Date :**07/25/94**

<b>TEST</b>	<b>RESULT UNITS</b>	<b>DETECTION LIMIT</b>	<b>DATE EXTRACTED</b>	<b>DATE ANALYZED</b>	<b>BY METHOD</b>
Base/Neutral & Acid Ext			07/26/94	07/26/94	8270 DC
Acenaphthene	ND ug/Kg	33000			
Acenaphthylene	ND ug/Kg	33000			
Anthracene	ND ug/Kg	33000			
Benzo(a)anthracene	ND ug/Kg	33000			
Benzo(b)fluoranthene	ND ug/Kg	33000			
Benzo(k)fluoranthene	ND ug/Kg	33000			
Benzo(g,h,i)perylene	ND ug/Kg	33000			
Benzo(a)pyrene	ND ug/Kg	33000			
Dibenzo(a,h)anthracene	ND ug/Kg	33000			
Dibenzofuran	ND ug/Kg	33000			
Fluoranthene	6,490j ug/Kg	33000			
Fluorene	ND ug/Kg	33000			
Indeno(1,2,3-cd)pyrene	ND ug/Kg	33000			
Naphthalene	ND ug/Kg	33000			
Pentachlorophenol	158,000 ug/Kg	33000			
Phenanthrene	ND ug/Kg	33000			
Pyrene	8,910j ug/Kg	33000			

<b>Surrogate Standard</b>	<b>% Recovery</b>	<b>QC Limits</b>	
S1 - Nitrobenzene-d5	Q	23	120
S2 - 2-Fluorobiphenyl	Q	30	115
S3 - 4-Terphenyl-d14	Q	18	137
S4 - Phenol-d6	Q	24	113
S5 - 2,4,6-Tribromophenol	Q	19	122
S6 - 2-Fluorophenol	Q	25	121

ND - Not Detected

*M. J. Lee*  
 LABORATORY MANAGER